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Job stress and turnover intentions among Tennessee Cooperative Extension System employees

Patsy Ahmed Ezell

To the Graduate Council:

I am submitting herewith a dissertation written by Patsy Ahmed Ezell entitled "Job stress and turnover intentions among Tennessee Cooperative Extension System employees." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Human Ecology.

Ernest W. Brewer, Major Professor

We have read this dissertation and recommend its acceptance:

Accepted for the Council:
Dixie L. Thompson

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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We have read this dissertation
and recommend its acceptance:

Dr. Gregory C. Petty, Committee Member

Dr. Ralph G. Brockett, Committee Member

Dr. Alan P. Chesney, Committee Member

Accepted for the Council:

Vice Provost and Dean of
Graduate Studies

Job Stress and Turnover Intentions Among Tennessee Cooperative Extension System Employees

A Dissertation
Presented for the
Doctor of Philosophy Degree
The University of Tennessee, Knoxville

Patsy A. Ezell
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ABSTRACT

The purpose of this study was to determine whether or not significant relationships existed between job stress and voluntary turnover intentions among Tennessee Cooperative Extension System (TCES) employees. The demographic variables gender, age, ethnicity, and education level, and the job-related variables job classification, job assignment, level in the organization, length of service with TCES, and length of service in current position were also examined to determine if significant differences existed in job stress and turnover intention scores among employee groups. The attitudinal variables job satisfaction and organizational commitment were examined as intervening variables in the job stress-turnover intentions relationship.

The population for this study consisted of all employees of TCES at the time of data collection (January, 2002) who worked 30 or more hours weekly, or had a 75% or greater extension appointment. To ensure adequate representation from both job classifications, the population was stratified by professional (exempt) and support (non-exempt) employees. A 50% random sample was drawn from each stratum, resulting in 411 employees included in the study sample. A response rate of 81% resulted in 333 employees serving as study participants, including 201 administrative/professional employees and 132 clerical/support employees.

Data for this study were collected through a self-reported questionnaire packet. Instruments used to collect data included the *Job Stress Survey (JSS), the Job Satisfaction Scale, Intent to Turnover Scale*, and the *Organizational Commitment Questionnaire.* Additional demographic and job-related information was also collected in the supplementary questionnaire.

A series of statistical analyses, including Pearson *r* and Spearman rank correlations, and linear and multiple regression were utilized to respond to eight research questions designed to examine relationships between job stress and turnover intentions of TCES employees. These analyses revealed significant and positive relationships between job stress, job pressure, and lack of organizational support with turnover intentions. The frequency that job stress and lack of organizational support occurred was also significantly and positively associated with turnover intentions, while the frequency of job pressure was not. Job stress and lack of organizational support severity was determined to also be significantly and positively related to turnover intentions, while job pressure severity was not significantly related.

When individual stressors were examined, 22 of the 30 stressors had significant associations with turnover intentions. The attitudinal variables job satisfaction and organizational commitment were both determined to be significantly and negatively related to turnover intentions, as well as with job stress, job pressure, and lack of organizational support. Multiple regression analysis revealed that job satisfaction and organizational commitment explained a significant amount of the variance in the turnover intentions construct. Job satisfaction and organizational commitment were also found to be significantly and positively related to each other.

A series of MANOVAs and ANOVAs were utilized to test the four null hypotheses in this study, which were all rejected. Significant differences were found in job stress scores when compared by education level, as well as by job classification and job assignment. Significant differences were also found among turnover intention scores when examined by age and education levels, as well as by length of tenure with TCES.

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CHAPTER I

INTRODUCTION

The fundamental characteristics of the workplace and the nature of work have transitioned in recent years. As the western world moved rapidly into a knowledge-based economy, continuous change served as an impetus for companies and organizations to proactively identify and address emerging issues that were deemed as critical to future organizational success.

Workplace changes resulted in a growing number of employees becoming vulnerable to workplace stress and its related outcomes (Karasek & Theorell, 1990; Keita & Sauter, 1992; Northwestern National Life, 1991). The impact of unabated stress in the workplace has contributed to reduced productivity, increased absenteeism and turnover, escalation of violence, and adverse impacts on employee health and well being. Each of these factors has resulted in extensive costs to individual employees, organizations, and society as a whole, with the ultimate societal consequences manifested in rising health care costs (Spielberger & Reheiser, 1994).

Authoritative sources recently proclaimed job stress as one of the United States' leading adult health problems (Humphrey, 1998). The U.S. Bureau of Labor Statistics (1996) reported well over one-fourth of the American workforce had been affected by job stress in some way. In 1991, Northwestern National Life surveyed 600 workers and reported that "one in three said job stress is the single greatest stress in their lives" (p. 2).

The impact of job stress on worker turnover was also reflected in the same survey (Northwestern National Life, 1991). Fourteen percent of the respondents indicated that

stress was the reason for their quitting or changing jobs in the preceding two years. In a similar study one year later (Northwestern National Life, 1992) that involved 1200 full-time, private sector employees, 40% of those surveyed reported their jobs were "extremely" or "very" stressful. These employees were twice as likely as other employees to think about quitting their jobs (59% versus 26%), suffer stress-related medical problems (55% versus 21%), or experience burnout on the job (50% versus 19%). As the pace of change increased, evidence continued mounting that implicated workplace stress as a growing concern (Humphrey, 1998).

Recent research supported the hypothesis that turnover among managerial, technical, and professional employees was increasing. The Society for Human Resource Management's *Retention Practices Survey* (Society for Human Resource Management, 2000) reported nearly half (41%) of the surveyed companies and organizations had seen an increase in the number of voluntary resignations at their organizations during 1999-2000. In 1997, the same retention survey noted an increase of voluntary resignations at 35% of the surveyed organizations. The report indicated the larger the employer, the greater the percentage of voluntary resignations. Those organizations that employed 1001 to 5,000 employees reported an average of 21% of their workforce resigned during the past year. Companies with 100 to 300, as well as those with 501-1,000 employees, both reported 16% resignation rates (Society for Human Resource Management).

The increasing frequency of employee movement in and out of organizations, combined with external and internal changes occurring at a rapid pace, set the stage for increased levels of individual and organizational stress (Spielberger & Reheiser, 1994).

High levels of stress within an organization have been demonstrated to be a major problem, with extensive costs to individual employees and organizations, negatively influencing productivity, absenteeism, and employee health and well being (Spielberger & Reheiser). Stress has been estimated to cost businesses approximately $150 billion every year (Quick, Quick, Nelson, & Hurrell, 1997).

Public sector organizations such as those within the Cooperative Extension System has not been immune to these changes. Workplace stress has been documented in several studies as a key concern in Extension and other public sector organizations (Bamberger, 1990; Bartholomew & Smith, 1990; Carter, 1989; Clark, 1981; Clarke, 1992; Goering, 1991; Riggs, 1993; Sears, Urizar, & Evans, 2000; Suandi, 1982).

The University of Tennessee Agricultural Extension Service (UTAES) and Tennessee State University Cooperative Extension Program (TSU-CEP) serve as non-formal education arms of the two land-grant universities in Tennessee, comprising Tennessee's Cooperative Extension system (TCES). With more than 800 employees in 95 Tennessee counties, providing a healthful environment that fosters employee commitment and well-being has been a constant challenge. Cooperative Extension system organizations located in the remaining 49 states have faced similar organizational issues. New leadership has emerged in many extension organizations, precipitating a variety of organizational re-structuring efforts, as well as innovative strategic plans for program implementation and delivery. Change has become the norm for employees at all levels of the Cooperative Extension Service, resulting in a variety of work-related stressful situations that could ultimately impact both organizational effectiveness and

employee health (Carter, 1989; Seevers, Graham, Gamon, & Conklin, 1997; Sears et al., 2000).

In this study, the researcher examined the relationship between job stress and voluntary turnover intentions among Tennessee Cooperative Extension System employees. The severity and frequency of job stressors within the constructs of job pressure and lack of organizational support were investigated to determine the nature of job stress within the Extension system, as well as to identify any relationships or differences among self-reported job stress, demographic characteristics, job characteristics, and employees' intentions to leave their job within the next 12 months.

Rationale

Recent research has documented several important workplace trends that began emerging in the 1990s and distinguished that decade from earlier ones (Moore, 1998). These trends, deemed the "new workplace paradigm" (Howard, 1995; Jones & DeFillippi, 1996, Moore) were identified as (a) increased emphasis on cognitive skills rather than manual skills, (b) complex organizational systems, (c) increasing competition and environmental uncertainty, (d) technology innovation and advancements that hasten the transfer of information and the speed of work, (e) increasingly diverse workforce and customer bases, and (f) global interdependence.

These emerging trends were significant for organizations and companies and resulted in the development of new strategies to attract and retain quality employees. By proactively addressing issues that had a negative impact on employees and the work

environment, organizations took a critical step toward demonstrating their commitment to employees' health and well-being.

Books, magazines, journals, videos, and web sites abounded with articles offering strategies for managing stress and dealing with stress in the new workplace. The business literature focused on the negative impact of job stress on employees' health and work performance. In the workplace, the term stress has commonly been used by workers at all levels of organizations to describe a wide variety of environmental conditions and internal situations that have negative connotations.

Relatively few studies examining job stress or turnover intentions were conducted with extension employees serving as the sampling frame (Bartholomew & Smith, 1990; Carter, 1989; Clark, 1981; Clarke, 1992; Goering, 1991; Riggs, 1993; Sears et al., 2000; Suandi, 1982) that could provide valuable benchmark information for this investigation. There was a need to examine the issues of job stress and turnover in the Extension system as interpreted and experienced by current workers. This investigation provides a contemporary framework to investigate job stress and turnover intentions within the Extension system, resulting in useful knowledge for effective interventions, training, and other strategies to minimize or eliminate potentially harmful workplace stressors, ultimately resulting in reduced voluntary turnover.

Theoretical Framework

The theoretical framework that served as the foundation for this study encompassed a holistic perspective of the job stress and turnover intentions relationship.

Theories derived from the occupational stress and turnover literatures were integrated to create a new conceptual model.

Occupational Stress Theory

The occupational stress theoretical framework utilized in this study was based on an integrated concept utilized by Spielberger (1994) in the development and testing of *The Job Stress Survey (JSS).* Spielberger proposed a conceptual model that integrated segments of the Transactional Process Theory (Lazarus, 1966, 1994) and the Demand-Control Theory as developed by Karasek (1979) into an integrated model that guided the construction and development of the *Job Stress Survey* (*JSS*) (Spielberger & Vagg, 1999). The resulting framework addressed the nature of the person's perceived severity of specific job stressor events, as well as his or her perceived frequency of occurrence of the job stressors. The interactional model also identified job pressures and lack of organizational support as separate constructs. As suggested by Jackson and Schuler (1985), the *JSS* items focused on specific aspects of the work situation that often resulted in psychological strain.

Karasek's (1979) Demand-Control Model (Job-Strain Model) (Figure 1) was grounded in the Person-Environment Fit (P-E Fit) theoretical approach, contending that stress was created when there was a misfit between a person's capabilities or resources and his or her environment. It emphasized interactions between levels of control (decision latitude) and job demands as determinants of work-related psychological strain. The model proposed that low control and high demand appeared to contribute to lowered productivity and to increased risk of health problems. Individuals who had a sense of

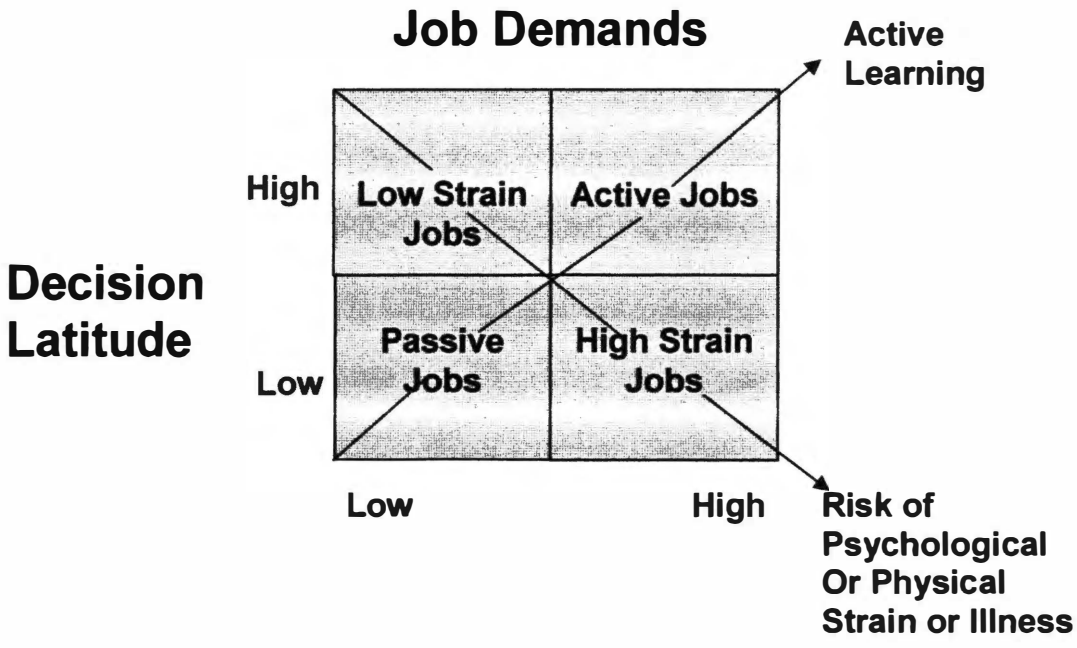

Figure 1. **Karasek's Job Strain Model.**

control over their work, rather than powerlessness when confronted with decisions and problems, were bothered less by work stressors. The most stressful jobs were those that combined high workload and low discretion. The high demands associated with the work of high-ranking administrators may be mitigated by the large amount of control that is typically associated with these positions. In this model, stress was seen as a function of the job rather than the individual. Karasek's "Job-Strain Model" has become one of the dominant theoretical perspectives in contemporary stress studies (Harden, 1999).

Karasek (1979) drew attention to the hypothesis that work characteristics may not be linearly associated with worker health, positing they may combine interactively in relation to health. He documented his theory by using secondary data analysis, reporting that employees in jobs perceived to have both low decision latitude and high job demands were likely to report poor health and low job satisfaction. Follow-up studies confirmed his theory. The lowest probabilities for illness and death were found among employee groups with moderate workloads combined with high control over work conditions. While the combined effect of the two work characteristics was often described as an interaction, Karasek's own analyses suggested an additive rather than a synergistic effect. The Transactional Process Theory illustrated in Figure 2 (Lazarus & Folkman, 1984) provided a different perspective to the multi-dimensional stress construct by distinguishing between stressful conditions (stressors) and how they were perceived and cognitively appraised by a person. Lazarus' approach required a detailed analysis of specific stressors that were associated with specific jobs, and how workers uniquely reacted to each of the stressors.

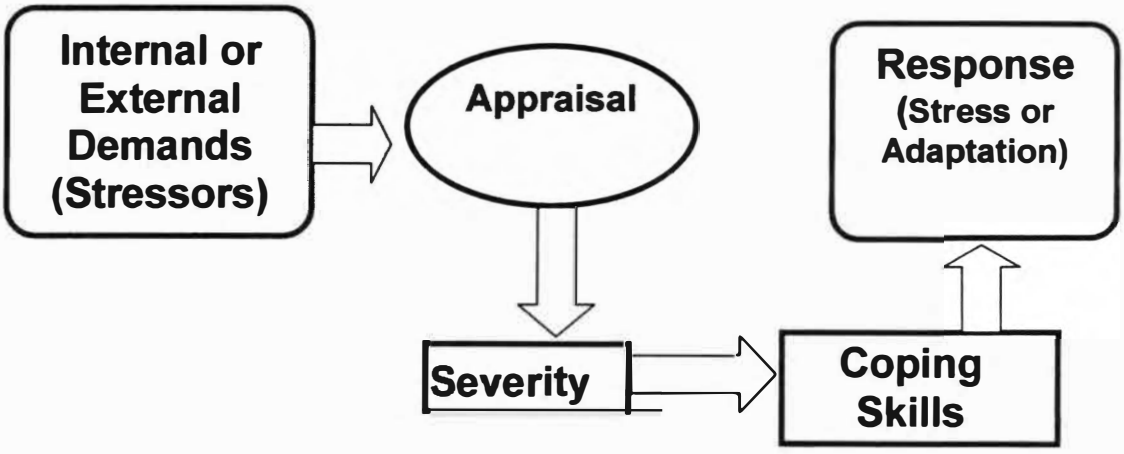

Figure 2. **Conceptual diagram of Transactional Process Model of job stress (Adapted from Lazarus & Folkman, 1984).**

Most transactional models tended to build on the conceptual structures defined in the interactional models by Karasek and his colleagues. These models focused on the possible imbalance between demands and ability or competence. This connection was most evident in the model advanced by Lazarus and Folkman (1984). Transactional models defined stress as a negative psychological state involving aspects of both cognition and emotion. The stress state was treated as the internal representation of specific problematic transactions between the individual and his or her environment (European Agency for Safety and Health at Work, 2000).

Appraisal was defined as the evaluative process that gave meaning to person-environment transactions. Refinements to the theory by Lazarus and Folkman (1984) suggested both primary and secondary components to the appraisal process. Primary appraisal required constant monitoring of the person's transactions with the environment, focusing on the question "Do I have a problem?" Recognizing a problem situation was often accompanied by unpleasant emotions and general discomfort. Secondary appraisal was contingent on the recognition of the problem and involved a more detailed analysis, resulting in the generation of possible coping strategies.

In the Transactional Process Model, stress arose when a person perceived he or she could not adequately cope with the demands made of him or her (Lazarus, 1966; Lazarus & Folkman, 1984). The stress experience was defined first by the person's acknowledgement that a problem existed, followed by difficulty in coping with demands, resulting in worry or depression. This approach presented a clear distinction between the

effects of lack of ability or competence on performance and the effects of stress on performance (European Agency for Safety and Health at Work, 2000).

The integrated stress model utilized in this study incorporated key features from the conceptual model envisioned by Spielberger and Vagg (1999) in the development of the *JSS*. The interactional model provided a more comprehensive approach to the examination of job stress than the Demand-Control or Transactional Process Models alone could offer.

Turnover Theory

Recent research on turnover suggested that an integrated model including both the structural factors present in organizations and the cognitive processes individual employees experienced provided the strongest information for prediction of voluntary turnover (Hom & Griffeth, 1995; Lee & Mitchell, 1994). In an integrated model proposed by Moore (1998), several factors were identified that affected employee attitudes toward job satisfaction and organizational commitment. These factors included decision latitude, coworker relations, compensation and benefits, organizational communication, and internal job mobility. The resulting attitudes, in turn, influenced employee retention.

The generally understood process for Moore's (1998) Model of Voluntary Turnover focused on the contention that poor attitudes toward work circumstances stimulated the quitting process. Recent research also posited that job satisfaction and organizational commitment were independent constructs, both of which were critical in understanding the voluntary turnover process (Elangovan, 2001). Based on this

hypothesis, the integrated model (Moore) included job satisfaction and organizational commitment as key mediators of turnover intentions.

This researcher selected Moore's (1998) Integrated Model of Voluntary Turnover to serve as the theoretical framework for the investigation of the turnover process in this study. The constructs of turnover intentions, job satisfaction, and organizational commitment provided a useful framework for investigating voluntary turnover of TCES employees.

Much research over the last three decades has been conducted on the relationship between voluntary turnover and turnover intentions (an individual employee's cognitions regarding his or her behavioral intentions to remain with or to leave an organization) (Cohen, 1993; Jaros, 1995). Several researchers contended that turnover intentions were the most immediate cognitive precursors to turnover behavior (Hui, 1988). Hom, Caranikas-Walker, Prussia, and Griffeth (1992) conducted a meta-analysis of studies examining the relationship between voluntary turnover and 35 different variables. They concluded that among these variables, intention to quit had the strongest relationship to actual voluntary turnover. Based on these findings, it was logical to utilize turnover intentions as a predictor of actual turnover behavior in a model examining voluntary turnover.

Comprehensively testing all components of Moore's Model of Voluntary Turnover (Moore, 1998) fell beyond the scope of this study. However, the surrogate variable "intent to turnover" was utilized to examine the voluntary turnover process. While the constructs of job satisfaction and organizational commitment were not

examined in depth in this study, global measures of job satisfaction and organizational commitment were used to collect relevant data. These data were examined as intervening variables in the job stress-turnover intentions relationship. Any significant relationships between the attitudinal variables job satisfaction or organizational commitment and the variables of interest resulted in additional analyses to examine the nature of the relationship.

Theoretical Integrated Model for This Study

Withdrawal behaviors such as absenteeism and turnover have often been cited as an outcome of stress (Gupta & Beehr, 1979; Karasek & Theorell, 1990; Kemery, Bedeian, Mossholder, & Touliatos, 1985; Matteson & Ivancevich, 1987). Investigations on the direct relationship between job stress and turnover, however, were limited (Gupta & Beehr). Bedeian and Armenakis (1981), Kemery et al., and Mobley (1977) posited that attitudinal variables such as job satisfaction and organizational commitment were the direct causes of an intention to quit. Their resulting theoretical approach, consequently, asserted the impact of stress on turnover intentions was mediated by attitudinal variables.

Many models of turnover found in the literature ignored the influence of stress on turnover cognition and behaviors. Fang and Baba (1993) developed a 3-stage model that emphasized the direct relationship of stress and turnover intentions. Their investigation suggested stress could be considered a significant predictor of turnover intention. However, the study also supported earlier findings that stress played only a limited role, explaining a relatively small proportion of variance in the intention to quit. These

researchers suggested a more comprehensive model of turnover incorporating stress should be sought.

Based on these findings, this researcher developed and utilized an integrated theoretical model of *Job Stress and Turnover Intentions* (Figure 3) to guide this study. This model incorporated tenets of P-E Fit Theory and Transactional Process Theory of occupational stress with an integrated model of turnover intentions (Moore, 1998) based on content and process theoretical approaches to voluntary turnover. The resulting holistic model also acknowledged the potential effects of job satisfaction and organizational commitment, which have been shown in past studies to mediate the job stress-turnover intentions relationship (Cotton & Tuttle, 1986; Kemery et al. 1985). Each component of the model was examined in relationship to other components. Demographic and job characteristics were utilized to determine if significant differences among any groups existed in these relationships.

Statement of the Problem

The role workplace stress plays in adversely impacting employee productivity, absenteeism, well-being, and related work outcomes has been consistently documented in the literature (Keita & Hurrell, 1994; Keita & Sauter, 1992; McKee, Markham, & Scott, 1992; Rahman & Zanzi, 1995). During the last decade, the proportion of employees feeling "highly stressed" continued to rise, resulting in negative impacts to organizational bottom lines (Northwestern National Life, 1991).

As the nature of work transformed in the U.S. and around the world, economies increasingly moved from a manufacturing orientation toward a service orientation. In

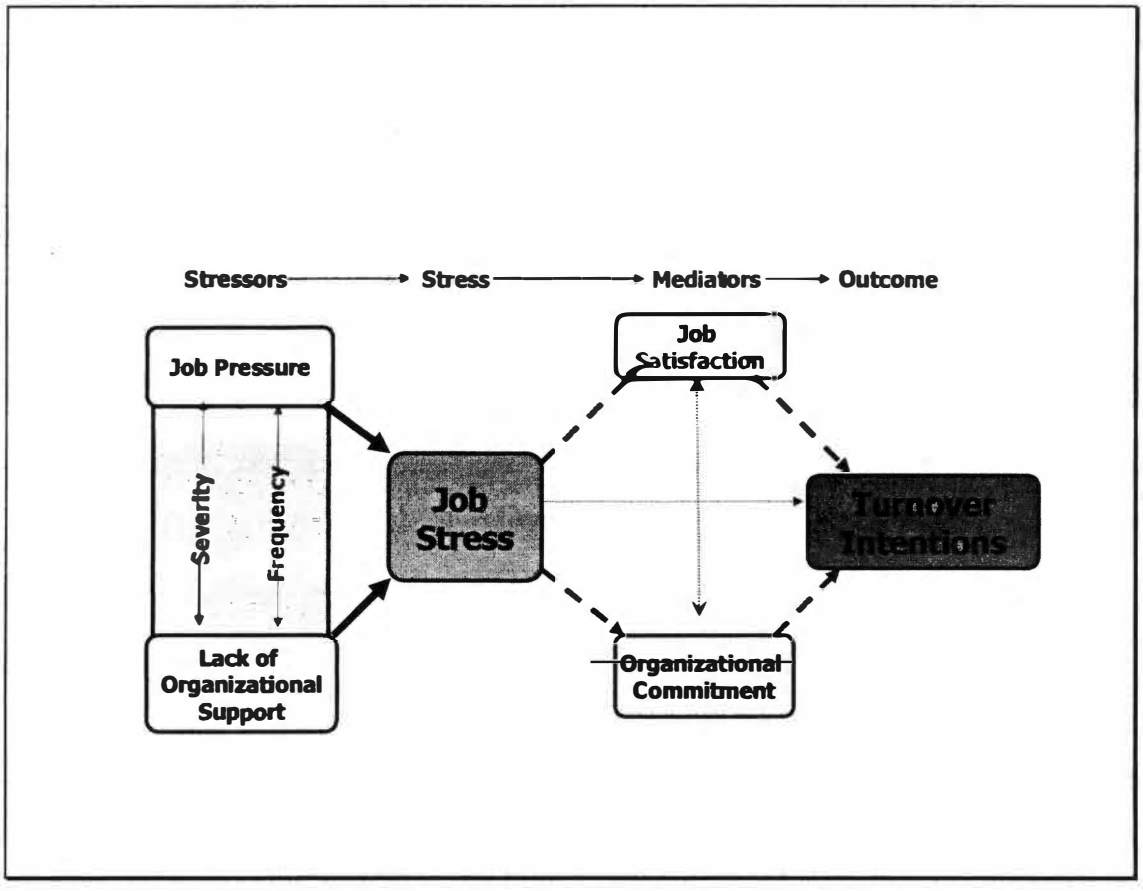

Figure 3. **Integrated conceptual model of job stress and turnover intentions.**

1990, only 18% of civilian jobs were in the manufacturing arena while 33% were connected with the service industries (Northwestern National Life, 1991). This continuing shift in economic trends signaled a need to also review perceptions of specific characteristics of jobs that impacted workers' health and organizational outcomes, such as job stress (Marshall, Barnett, & Sayer 1997). The literature clearly documented that many occupations in the service sector were recognized as highly stressful and that further investigations were warranted.

Turnover of employees at all levels of the organization is a concern in the Tennessee Cooperative Extension System (TCES) as well as in Extension organizations across the country. While turnover rates for The University of Tennessee administrative and professional (exempt) employees were reported to range from 5.4% in 1994 to a high of 10% in 1999, rates in 2000 were 9%, while 2001 turnover rates fell to slightly more than 7% (H. Byrd, personal communication, August 10, 2001). This trend mirrored national estimates of increased turnover during the past decade in the CES system as well as other higher education institutions. It should be noted that data on turnover rates for the entire TCES system were not available at the time this study was conducted.

On the average, turnover costs at organizations and institutions have been estimated as a minimum of one year's salary and benefits, or a maximum of two year's salary and benefits for a full-time exempt employee (Fitz-enz, 1997). Four internal sources found to contribute to the cost of employee turnover were (a) the cost of termination, (b) the cost of hiring and training a replacement, (c) the vacancy cost until the job is filled, and (d) the loss of productivity with a new employee. The impact of

turnover on the organization could take its toll not only on the bottom line but also on employee morale, program continuity, stakeholder/customer satisfaction, workload equity, and employee motivation.

The identification of stressors perceived to be negatively impacting TCES employees and the relationship of those stressors to voluntary turnover intentions could provide direction and guidance in addressing critical organizational challenges for the future. Based on these outcomes, strategies for eliminating or minimizing specific workplace stressors could be drafted, resulting in a more healthful work environment and reduced employee turnover in years to come.

Purpose of the Study

The purpose of this study was to examine the nature of job stress within the Tennessee Cooperative Extension System and its relationship to turnover intentions of employees who work in different job classifications, at different levels of the Extension organization, and in different job assignments. The two major components of job stress as outlined by Spielberger and Vagg (1999) in a variety of occupational settings were identified as *job pressure* and *lack of organizational support*. These constructs were utilized to determine the nature of job stress within TCES. The study also investigated potential relationships and differences between the demographic characteristics age, gender, ethnicity, and education level and job-related characteristics length of service with TCES, length of service in current position, job classification, level in organization, and job assignment with job stress and intentions to leave the organization. The attitudinal variables job satisfaction and organizational commitment were alsoexamined

to determine the nature of their relationship with the variables of interest in the theoretical model.

Objectives of the Study

The objectives of this study related to job stress as experienced by employees within the Tennessee Extension System and any relationships that existed between job stress and voluntary turnover intentions. These objectives were to:

1. Determine whether or not there was a significant relationship between job stress and turnover intentions of employees.
2. Examine specific job stressors impacting Tennessee Cooperative Extension System employees.
3. Determine whether demographic variables played a significant role in employees' experiencing work-related stress and turnover intentions in similar or different ways.
4. Determine whether job-related variables played a significant role in employees' experiencing work-related stress and turnover intentions in similar or different ways.
5. Determine if the attitudinal variables job satisfaction and organizational commitment mediated the job stress-turnover intentions relationship.

Research Questions

The following questions were used to guide the investigation of job stress in Tennessee Cooperative Extension System employees and its relationship to employees' intentions to leave their work organization during the next 12 months. The overall

research question framing this study was *how does work-related stress influence turnover intentions of TCES employees?* The following specific research questions were used to guide the process of examining specific relationships between the variables of interest among TCES employees.

1. Is there a significant relationship between job stress or its two dimensions, job pressure and lack of organizational support, and turnover intentions of TCES employees?
2. Is the frequency that job stress, job pressure and lack of organizational support occur in the workplace significantly related to turnover intentions of TCES employees?
3. Is the severity of job stress, job pressure and lack of organizational support significantly related to turnover intentions of TCES employees?
4. Are there significant relationships between individual stressors and turnover intentions of TCES employees?
5. What role does the attitudinal variable job satisfaction play in the job stress and turnover intentions relationship among TCES employees?
6. What role does the attitudinal variable organizational commitment play in the job stress and turnover intentions relationship among TCES employees?
7. Is there a significant relationship between the attitudinal variables job satisfaction and organizational commitment? If so, how does this relationship influence the job stress-turnover intentions relationship?

8. What combination of variables examined in this study explains the greatest percentage of variance in the turnover intentions construct?

Hypotheses

Due to the predominance of the use of self-report measures in stress research, no clear causal relationships between stress and outcome variables have been documented. However, researchers have made informed assumptions based on earlier outcomes, indicating stress affected worker behavioral outcomes. This contention was illustrated in the Ivancevich and Matteson (1980) model of stress, in which stressors existed in the environment and were then perceived and evaluated by individuals, resulting in felt stress. In turn, stress affected worker outcomes.

Conceptually, four kinds of relationships between job stress and turnover intentions may be possible: (a) a positive linear relationship, (b) a negative linear relationship, (c) a curvilinear/U-shaped relationship, or (d) no relationship (Gupta & Beehr, 1979; McLean, 1979; Skyrme, 1992). Based on earlier investigations, the researcher expected the job stress-turnover intentions relationship would differ depending on the frequency and severity of experienced stress, demographic and job-related variables of age, ethnicity, gender, educational level, job classification, level in organization, job assignment, tenure with organization, and tenure in current position. Based on these findings, the following null hypotheses were tested in this investigation:

H_O1 There are no significant differences among job stress scores as measured by the *JSS* for TCES employees when compared by the demographic characteristics of age, ethnicity, gender, and education level.

H_O2 There are no significant differences among job stress scores as measured by the *JSS* for TCES employees when compared by the job-related characteristics of job classification, level in organization, job assignment, tenure with TCES, and tenure in current position.

H_O3 There are no significant differences in turnover intentions of TCES employees as measured by the *Intention to Turnover* scale when compared by the demographic characteristics of age, race, gender, and education level.

H_O4 There are no significant differences in turnover intentions of TCES employees as measured by the *Intention to Turnover* scale when compared by the job-related characteristics of job classification, level in organization, job assignment, tenure with TCES, and tenure in current position.

Assumptions

The research design and methodology utilized in this study was based on the following set of assumptions.

1. Questions regarding job stress and turnover intentions are personal in nature. It was assumed the responses to all items were an accurate and honest reflection of employee perceptions at the time the instruments were completed.
2. It was assumed that all selected study participants were actively encouraged to participate by their organization's administrative leaders.
3. It was expected that all selected study participants would read, understand,

and follow the instructions provided for completion of the questionnaires before returning them.

4. It was assumed that the *intention to turnover* surrogate measure possessed predictive validity and thus serves as a precursor to actual turnover.

Limitations

Limitations are factors that may or will affect study outcomes, yet are out of the researcher's control (Mauch & Birch, 1998). The following limitations have been identified as inherent in this study design:

1. Despite the random selection of study participants and relatively large sample size, the cross-sectional nature of the research design of this study limits the generalizability of its findings. While results may be generalized concerning the nature and relationships of job stress and turnover intentions of Extension system employees, generalization to employees in other work organizations should be made with caution.
2. No causality can be determined from these findings.
3. The instruments used in this investigation were restricted to those items and constraints of self-report survey sampling. Thus, the potential for common method variance and self-report bias exists, as does the problem of multicolliniarity among study variables.
4. Responses were possibly affected by the population surveyed, events occurring within the organization or within employees' homes, specific

questions, or employees' perceptions of how the collected information will be utilized.

5. Respondents' overall subjective viewpoints of the elements questioned concerning the work setting and the organization may be factors in the response rate.
6. Organizational change occurring within UTAES and TSU-CEP also limits the generalizability of this study. An early retirement incentive was offered in June 2001 to selected UTAES exempt employees, resulting in 33 employees electing to retire early. A new staffing plan was unveiled for the organization in August 2001, resulting in the restructuring of county office staffs. Recent administrative changes, staffing changes, and challenging funding issues have also occurred at TSU-CEP. Since the data utilized in this investigation were collected immediately after this period of organizational upheaval and change, it was acknowledged that responses, including employee perceptions of experienced job stress and turnover intentions, may have been impacted.
7. While UTAES and TSU-CEP are both members of the Cooperative Extension system, they remain autonomous in administration, budgeting, policies, and procedures. It is acknowledged that organizational differences may have influenced employee perceptions of job stress and turnover intentions.

Delimitations

Delimitations are factors that are controlled by the researcher (Mauch & Birch, 1998), thus limiting the introduction of unexpected variance in the study design. In this

investigation, the researcher made several decisions to establish parameters that would result in minimal error and maximum control. The following delimitations were utilized to define this investigation and establish a research framework:

1. This study was delimited to employees of the Cooperative Extension System in Tennessee. Only employees working 30 hours or more (non-exempt) or 75% or more (exempt) in professional and clerical or support extension positions at the time of data collection were included in the study population.
2. The sample in this study was drawn using a stratified, random methodology from Tennessee Cooperative Extension System administrators, professionals, clerical, and support staff at county, district, and state levels.
3. The variable *intention to quit* was utilized as a "surrogate variable" for turnover rather than as a direct measure of actual turnover. Several studies have determined that *intention to quit* is significantly related to actual turnover behavior (Mobley, 1982).
4. This study focused on investigating the relationship between perceived job stress and turnover intentions, and how that relationship was influenced by selected demographic and job-related characteristics. While the literature and most turnover models indicate that job satisfaction and/or organizational commitment serve as potential predictors of employee turnover intentions, these constructs will only be examined in terms of their role as potential mediating variables.

5. The stress literature clearly documented the roles of social support, coping, and life stress as key factors related in some way to occupational stress, its antecedents or consequences. A comprehensive examination of these constructs was beyond the scope of this study. While these constructs were not measured, it is acknowledged these factors may inherently influence the findings in this study.

Operational Definitions

Several terms utilized throughout this study were operationally defined below to ensure clarity. Definitions were based on both relevant research literature and common language within the Extension system.

1. *Cooperative Extension Service (CES):* A publicly assisted, nonformal, educational system established in 1914 (Seevers et al., 1997) that links the education and research resources of the United States Department of Agriculture (USDA), land-grant universities, and county administrative units.
2. *Cooperative Extension System:* A national network of Cooperative Extension Service organizations. In Tennessee, the Cooperative Extension System (TCES) consists of The University of Tennessee Agricultural Extension Service and Tennessee State University Cooperative Extension Program.
3. *County Extension Agent or Extension Educator:* Professional employees of the CES employed at the county level to identify local needs of clientele and develop networks and partnerships to design, implement, and evaluate

educational programs. The programs address critical issues of local clientele and communities.

4. *Job Assignment or Job Title:* The specific assigned duties an employee performs within an organization. This information was self-reported on the demographic questionnaire.
5. *Job Classification:* The classification in which employees are identified as "professional" or "support" employees. This information was self-reported on the demographic questionnaire.
6. *Job Stress (Occupational stress):* "The harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker" (Sauter et al., 1999).
7. *Job Stress Survey (JSS):* A self-report instrument used to measure generic sources of occupational stress encountered by men and women in a wide variety of work settings. It also identified the frequency and severity of specific stressors. Scores were used to create measures of overall job stress, job pressures, and lack of organizational support (Spielberger & Vagg, 1999).
8. *Land-Grant University:* An institution of higher education sustained and supported by the Morrill Acts of 1862 and 1890, and expanded by the Hatch Act of 1887, the Smith-Lever Act of 1914, and subsequent legislation.
9. *Land-Grant System:* Term used to describe a set of U.S. state and territorial institutions of higher learning that receive federal support for integrated

programs of agriculture and family and consumer sciences teaching, research, and extension.

10. *Length of Service:* The length of time employed by the TCES in any capacity at the time of data collection for this study. This variable was self-reported on the demographic questionnaire.
11. *Length of Service in Current Position:* The number of years employed in current position at the time of data collection for this study. This variable was self-reported on the demographic questionnaire.
12. *Level in Organization*: The level at which employees performed assigned job duties. Extension system jobs at the county, district/area, and state levels were examined in this study. This information was self-reported on the demographic questionnaire.
13. *Professional Employees:* Salaried (exempt) personnel who hold a 75% - 100% Extension appointment with an educational background that includes a minimum of a bachelor's degree from an accredited college or university. In this study, administrative and professional employees form a single category called "professional employees".
14. *Support Employees:* Hourly paid (non-exempt) employees who work 30 or more hours with experience and training in office, maintenance, or program support procedures and processes. They may or may not have attained a college degree, and they usually work in support of one or more professional

employees. In this study, clerical and support staff form a single category called "support" employees.

15. *Tennessee State University Cooperative Extension Program (TSU-CEP):* The 1890 Extension organization that serves as the off-campus educational division of Tennessee State University. TSU-CEP supports county extension offices in 11 counties across the state of Tennessee. State administrators and program specialists are located on the main campus in Nashville, TN. The organization focuses on "Educating People for Better Living" (TSU-CEP, 2001) by targeting programs to limited-resource urban and rural families, youth and small farmers.
16. *The University of Tennessee Agricultural Extension Service (UTAES):* The 1862 Extension organization that serves as the off-campus educational division of The University of Tennessee Institute of Agriculture. It has statewide responsibility, with offices in all 95 counties across the state. The educational role of UTAES is to disseminate, interpret, and encourage practical use of knowledge to seek solutions to individual and community problems. Programs focus in four broad areas—agriculture, family and consumer sciences, 4-H and youth development, and community resource development (UTAES, 2001a).
17. *Turnover Intentions or Intent to Leave:* A surrogate measure of voluntary turnover. Surrogate measures often have been used in previous studies when the primary variable (voluntary turnover) is difficult or impossible to measure due to circumstances beyond the researcher's control. The assumption is that the surrogate variable will be highly correlated with turnover in the organization

(Dalton, Johnson, & Daily, 1999). In this study, turnover intentions were operationally defined as the summated, mean score on a 3-item, Likert-type scale derived from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh,1983) that was utilized to collect self-reported data from study participants.

18. *Voluntary Turnover:* Individual employee movement across the membership boundary of the organization that is initiated by the individual (U.S. Bureau of Labor Statistics, 1996). The terms "quits" and "resignations" are used interchangeably to describe voluntary turnover. In this study, voluntary turnover was measured by the surrogate variable turnover intentions.

Summary

Over the past three decades, there has been a continual and growing conviction in all sectors of employment and government that stress as experienced in the workplace had negative consequences for the health and safety of individuals and for organizational health. This belief has been widely expressed in the media and in the scientific literature (European Agency for Safety and Health at Work, 2000).

The purpose of this study was to examine job stress within TCES and its relationship to turnover intentions of employees who work in different job classifications, at different levels of the extension organization, and in different job assignments. The two major components of job stress as outlined by Spielberger and Vagg (1999) were identified as *job pressure* and *lack of organizational support*. These constructs were

utilized to examine job stress within TCES. The study also investigated potential relationships and differences between the demographic characteristics age, gender, ethnicity, and education level and job-related characteristics length of tenure with organization, length of tenure in current position, job classification, level in organization, and job assignment with job stress and intentions to leave the organization. The attitudinal variables job satisfaction and organizational commitment were examined to determine the nature of their relationship with the variables of interest in the theoretical model.

This study examined the nature of job stress and any relationships that existed between job stress and voluntary turnover intentions of TCES employees. The Tennessee Cooperative Extension System, consisting of The University of Tennessee Agricultural Extension Service and Tennessee State University Cooperative Extension Program, served as the sampling frame for examining the relationship between job stress and decisions employees made concerning staying with or leaving the organization.

A theoretical model that combined elements of the Job-Strain Model (Karasek, 1979), which was grounded in P-E Fit Theory, and the Transactional Process Model (Lazarus, 1966; Lazarus & Folkman, 1984), and was conceptualized by Spielberger and Vagg (1999) served as a foundation for examining job stress in this study. Components of an integrated model of turnover proposed by Moore (1998) were utilized as a framework for examining turnover intentions. The two theoretical models were integrated by this researcher to provide an overall conceptual model useful in examining employee turnover intentions and relationships between turnover intentions and job stress.

This model included job satisfaction and organizational commitment as key precursors of turnover intentions. The literature provided conflicting points of view concerning the role of job satisfaction and organizational commitment in employee turnover intentions. Job satisfaction and organizational commitment were examined only in context of how they mediated or moderated voluntary turnover decisions.

The resulting Model of Job Stress and Turnover Intentions combined organizational stress theories from the P-E Fit Theory and Transactional Process Theory approaches, which were integrated by Spielberger (1994) and utilized to develop the *JSS*. This framework encompassed the nature of the perceived severity of specific job stressor events, as well as their perceived frequency. The model also identified job pressures and lack of organizational support as separate constructs.

The negative impact of job stress and turnover on organizational outcomes has been extensively examined in the literature. Results of this study provide an additional resource for Extension administrators as they strategically design policies and procedures that could ultimately result in minimizing and/or eliminating potentially harmful work stressors and their negative impact on employees and the workplace.

CHAPTER II

REVIEW OF THE LITERATURE

The following chapter provides an overview of the historical and current literature on occupational stress, voluntary turnover, use of turnover intentions as a surrogate variable, the Cooperative Extension Service, and related issues. Attitudinal constructs indirectly relating to this study are also reviewed. These constructs include organizational commitment and job satisfaction.

Historical Overview of Theory and Research Literature

The extensive reservoir of research that has been conducted on occupational stress and voluntary turnover during the last three decades precluded the inclusion of an exhaustive review in this study. Therefore, the following sections provide a brief overview of the histories of the stress concept, voluntary turnover, the use of intent to leave as a surrogate variable of voluntary turnover, and the Cooperative Extension Service.

The Stress Concept

The earliest documentation of the concept of stress emerged in thermodynamic theories in the late 19th century. The concepts of stress and strain were applied to mechanical equipment, in which it was acknowledged that placing machine parts under stress caused strain and often resulted in equipment failure. This mechanical model was integrated into the medical field, where it was hypothesized that human life stress events could cause a similar internal strain in humans, resulting in illnesses (McLean, 1979). Twentieth century researchers continued this perspective by examining the psychological

role of human stress. Cannon (1935) described stress as an interference with an organism's attempt to maintain homeostasis. He first described the "fight or flight" response comparing it with stressors that resulted in a physiological mobilization of the organism to expend large amounts of energy in either fleeing or fighting a threat.

Seyle is often called the "father of stress". His early work focused on the physical aspects of external conditions (stressors) and their impact on the internal condition of the organism (Seyle, 1950). Seyle (1974) theorized that a person experienced three stages when faced with a stressor: the alarm stage, the resistance stage, and exhaustion. During the alarm stage, the body prepares to meet the stressor's demands. Physical responses experienced during this phase include increased respiration, a rise in blood pressure, and dilation of the pupils. If the stressor disappears, the physical responses subside. If the stressful condition continues unabated, the person enters the resistance stage in which he or she experiences fatigue, anxiety, and tension. If the stressor remains, the individual enters the final stage of exhaustion. It is believed the repetition of this cycle causes strain on the person's psycho-physical mechanisms and leads to chronic fatigue, illness, accident proneness, and other negative outcomes. Seyle (1974) theorized that individuals are more illness-prone during periods of stress, and more recent research on the physiological responses to stress supports his hypothesis. The work of Seyle continues to influence stress theories and research, and much of the current language of stress can be traced to his contributions.

The next important era of stress research focused on the effects of stress on health. Cox (1978) developed a taxonomy of stress effects that also included several

health outcomes: heart attack, allergies, ulcers, headaches, migraines, diabetes mellitus, and asthma. Studies were also conducted relating stress to poor mental health and anxiety and depression (Ivancevich & Matteson, 1980).

During the 1960s and 1970s, there was no consensus definition of stress. Stress was defined as the external stimulus, the internal psychological state of discomfort, a behavioral response, and as an intervening variable linking environmental events with behavioral consequences (Beehr & Newman, 1978; Lazarus & Launier, 1978; Quick & Quick, 1984). This assortment of perspectives pointed out the universal nature of the stress concept. However, the absence of consensus on a definition, concept, or process of stress made it difficult to examine, understand, or control stress and its related consequences (Summers, DeCotiis, & DeNisi, 1995). Cooper (1998) stated that:

> Empirical research in the field, however, has massively outstripped our ability to understand the implication of that research, to put it into some kind of conceptual framework for the purposes of trying to develop appropriate theories which could help us to understand the mechanisms of stress and to frame our interventions. (p. 2)

This statement illustrates the complexity of the multi-faceted stress construct, with theoretical ties to anthropology, sociology, developmental, personality, social, clinical, environmental psychology, physiology, and medicine (Aldwin, 2000). While this phenomenon could lead to a sense of vagueness in defining stress across disciplinary boundaries, it also presents an opportunity to integrate several disciplines, perhaps eventually leading to a holistic approach to the investigation of the stress construct.

Occupational Stress

During the 1970s, many adults were spending roughly one-half of their waking lives in work-related activities. It seemed likely that physical factors of the work environment as well as social and psychological factors were interacting to influence employee health. Employee health was deemed important to the individual, to the organization, and to society (Summers et al., 1995).

Over the years, stress has consistently been linked with serious consequences for individuals (high blood pressure and heart disease) and for organizations (increased turnover and absenteeism, decreased performance) (Bedeian & Armenakis, 1981; Gupta & Beehr, 1979). When considering these outcomes in addition to the financial costs of job stress, it is not surprising that researchers as well as practitioners were interested in learning more about occupational stress. What continues to be surprising even today, however, is that the added attention to and interest in job stress has resulted in little agreement about the content, causes, or consequences of job stress (Summers et al., 1995).

The organizational stress literature suggests there were three different, yet overlapping, approaches used to define and study job stress. The first approach, coined the "engineering approach," conceptualized job stress as an aversive characteristic of the work environment and was generally treated as an independent variable in stress research studies. The second approach defined job stress in terms of common physiological effects of a wide range of noxious stimuli and treated stress as a dependent variable. This approach has been called the physiological approach. The final approach has been termed

the psychological approach; it conceptualized job stress in terms of the dynamic interaction between the person and their work environment (European Agency for Safety & Health at Work, 2000).

Beehr and Newman (1978) also outlined three perspectives for examining job stress. The first perspective focused on characteristics of employees that were thought to cause or contribute to health status. The second perspective viewed environmental factors as the causal agents in stress-health issues. An interaction of the person and environment was the focus of the third perspective. This approach viewed stress-health phenomena as an interaction of individual characteristics and that person's environmental fit or misfit. Job stress was historically examined within the framework of one or more of these perspectives.

One of the most influential theoretical frameworks in the field of stress was the Person-Environment Fit Theory (P-E fit). The basic premise of this conceptual model posited that stress evolved from a misfit between a person and the environment (Cooper, 1998; French & Caplan, 1972; French, Caplan, & Harrison, 1982). This dual structure was characteristic of the interactive perspective in psychology that proposed behavior, attitudes, and well-being were determined jointly by the interaction of the person with the environment (Lewin, 1951; Pervin, 1989).

In this widely accepted approach, occupational stress was defined by job characteristics that are incongruent with the abilities of the employee and the demands of the job (French & Caplan, 1972). The relationships of the person and of the environment have been widely accepted as playing a critical role in a variety of stress theories. The

person constructs pertinent to stress research included locus of control (Rotter, 1966), hardiness (Kobasa, 1979), Type A behavior (Friedman & Rosenman, 1959), and coping styles (Menaghan, 1983). Environmental concepts related to stress theories included stressful life events (Rabkin & Struening, 1976), daily hassles (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982), chronic stressors such as role ambiguity and conflict (Jackson & Schuler, 1985; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964), role overload and underload (French & Caplan, 1972), and job demands and decision latitude (Karasek & Theorell, 1990).

The workplace stress that evolved from a discordant person-environment fit could result in psychological, physical, and behavioral strains (Caplan, Cobb, French, Harrison, & Pinneau, 1980). Psychological strains could include dissatisfaction, anxiety, insomnia, or restlessness. Physiological strains included elevated blood pressure and serum cholesterol, as well as compromised immune system functioning. Behavioral symptoms of strain could include smoking, overeating, absenteeism, and frequent use of the health system. The cumulative effects of these strains could result in mental and physical illnesses such as hypertension, depression, coronary heart disease, ulcers, and even cancer (Cooper, 1998). Conversely, a good P-E Fit in the long run theoretically would result in positive health outcomes (Edwards & Cooper, 1988; Harrison, 1985).

A second set of outcomes when there is a person-environment misfit centers on efforts to resolve the resulting conflict through coping and defense. *Coping* involves efforts to change either the person or the environment to improve the P-E fit, while *defense* involves efforts to enhance P-E fit through the cognitive distortion of the person

or environment, resulting in denial, repression, or projection (Cooper, 1998; French, Rogers, & Cobb, 1974).

Several extensions and refinements of the P-E Fit Theory were developed. One of these focused on the P-E Fit Theory from the perspective of the organization and the person (Harrison, 1985). Harrison contended the effectiveness and survival of an organization depended on the fulfillment of demands it made of its employees. Organizational demands could be perceived as the needs of the organization, while employee abilities could be viewed as the supplies that could fulfill those needs (Caplan, 1987). In a comparable situation, employees could place demands on the organization. Supplies received by employees could demonstrate the organization's ability to meet the demands. Therefore, organizations that can meet critical employee needs or demands could experience less turnover than organizations that could not (Irving & Meyer, 1994).

The P-E Fit Theory provided a useful conceptual framework for understanding the interaction of the person and environment constructs and how they produced strain, whereas coping and defense perhaps could resolve the misfit. However, this theoretical concept had limitations. Campbell, Dunnette, Lawler, and Weick (1970) contended that the P-E Fit Theory was a pure process theory, with no definition of content of the person and environment dimensions. Therefore, the content must be obtained from other theories, such as the taxonomy of needs (Maslow, 1954), and the Theory of Job Characteristics (Campion & Thayer, 1985).

A second limitation addressed the issue that the P-E Fit Theory identified a set of possible relationships yet did not propose a priority hypothesis regarding the P-E fit and

strain relationship. Studies indicated that the relationship between P-E fit and strain could differ not only across strain indices and content dimensions but also across occupations (Caplan, 1987; Caplan & Harrison, 1993).

Cooper (1998) identified a third limitation of the P-E Fit Theory as devoting limited attention to the coping and defense mechanisms. The theory failed to specify any criteria the person should utilize to select from the various strategies for dealing with P-E misfit. The selection and sequencing of methods for resolving P-E misfit are not addressed, leaving researchers to test a variety of sequences with no benchmarks for comparison.

A variation of the P-E Fit Theory proposed by Karasek (1979) emphasized interactions between levels of control and job demands as determinants of work-related psychological strain. The model proposed that low control and high demand appear to contribute to lowered productivity and to increased risk of health problems. Sauter and Hurrell (1989) examined worker autonomy and control, determining that lack of control inhibits learning and undermines the motivation needed to overcome job stress associated with demanding work.

The Transactional Process Theory (Lazarus, 1966; Lazarus & Folkman, 1984) distinguished between stressful conditions (stressors) and how they were perceived and cognitively appraised by a person. It also addressed the resulting emotional reactions when a stressor was perceived as threatening and the person lacked effective coping capabilities. Lazarus' approach required a detailed analysis of specific stressors that were associated with specific jobs, and of how workers uniquely reacted to each of the

stressors while considering each individual's past experiences and coping skills. This approach led Lazarus to conceptualize job stress as an individual phenomenon in which the impact of work-related stressor events on behavior and emotions is mediated by the employee's perceptions and appraisals of specific stressors, as well as his or her coping skills for dealing with the stressors.

Brief and George (1994) contended it was very important to discover working conditions that would adversely affect groups of employees, criticizing Lazarus' individualistic approach. When Harris (1995) analyzed Lazarus' model, he noted that occupational stressors associated with organizational climate and culture could have profound effects on employees. Harris also theorized the effects could differ as a function of gender and of individual differences in personality and coping skills.

The theoretical approach to the study of job stress and the definition of the term "stress" continued to vary through the years dependant on the researcher and his or her past experiences, previous findings, and work environment. The development of more recent psychological models has been, to some extent, an attempt to overcome the criticisms and perceived shortcomings aimed at earlier theoretical approaches.

Variants of the psychological approach dominate contemporary stress theory. Two distinct types can be identified: transactional and interactional. Transactional models are primarily concerned with cognitive appraisal and coping and are considered an individual transaction. Interactional models focus mainly on the structural features of the person's interaction with his or her work environment. The two models were considered

largely complementary in the holistic examination of the stress construct (European Agency for Safety and Health at Work, 2000).

Spielberger and Reheiser (1994) concluded that the P-E Fit Theory and the Transactional Process Theory have merits as well as limitations. They viewed the theories as complementary rather than contradictory in providing a useful conceptual framework for understanding stress in the workplace. A theoretical model integrating key factors of the Transactional Process Theory developed by Lazarus (1966; Lazarus & Folkman, 1984) and the Demand-Control Theory as developed by Karasek (1979) guided the construction and development of the *Job Stress Survey* (Spielberger & Reheiser). The resulting framework encompassed the nature of the perceived severity of specific identified job stressor events, as well as their perceived frequency. The model also identified *job pressure* and *lack of organizational support* as separate constructs.

Voluntary Turnover

Voluntary turnover has been established as a multifaceted phenomenon that involves numerous cognitive, behavioral, and organizational factors. In the earliest turnover research during the 1970s, studies utilized a "non-integrated" model and focused on the correlates of voluntary turnover. These studies primarily examined which individual characteristics were most closely associated with continued employment, often to the exclusion of work environment and external variables (Cotton & Tuttle, 1986). These models were criticized because their examination of only antecedents and consequences of turnover implied the employee was largely passive in the turnover process (Moore, 1998).

Multivariate models began to emerge, largely constructed from successful bivariate predictors, including withdrawal intentions, alternative opportunities, work attitudes, personality, performance, and selected demographic variables (Maertz, 1998). However, even the most comprehensive models (Mobley, Griffeth, Hand, & Meglino, 1979; Price & Mueller, 1986) excluded several important correlates, resulting in small snapshots of the turnover picture. These studies resulted in a large portion of unexplained variance in turnover behavior (Hom et al., 1992; Hom, Griffeth, & Sellaro, 1984; Lee & Mitchell, 1994).

Several researchers heeded the call for a closer examination of the underlying psychological process of voluntary turnover (Hom & Griffeth, 1991; Hom et al., 1984; Mobley, 1977). They proposed a series of cognitive linkages between individuals' evaluation of their present job (job satisfaction) and their decision to leave the organization. These linkages included thoughts of quitting, intentions to seek alternatives, evaluation of alternatives, comparison of alternatives, quit decisions, and turnover (Moore, 1998).

Assuming the intent to quit or to stay was the cognitive event that immediately preceded turnover, Mobley (1977) proposed intermediate linkages in the voluntary turnover decision between job dissatisfaction and intention to quit, resulting in a process model. In their later expanded model, Mobley et al. (1979) concluded that individual values, job perceptions, and labor market perceptions determined (a) expected utility of the current job, (b) expected utility of alternatives, and (c) current job satisfaction. These elements combined to determine withdrawal intentions, presumably by way of the

linkages proposed by Mobley. Mobley et al. also theorized that organizational level factors and economic factors indirectly influenced quitting through their effects on job perceptions and labor market perceptions, respectively.

Due to ambiguous support in the research literature for previous turnover models, recent theorists sought to integrate both structural and process components as the most comprehensive way to examine the turnover phenomenon (Bluedorn, 1982; Hom & Griffeth, 1995). Integrated models exhibited increasing ability to account for turnover behavior. Bluedorn developed an integrated model of turnover that incorporated organizational commitment between job satisfaction and job search. Price and Mueller (1986) also supported a causal path from job satisfaction to organizational commitment in their turnover model. These studies supported the validity of an integrated model and also emphasized the centrality of the organizational commitment construct in the turnover process. Results from these studies encouraged revision of original structural models to include more structural factors and attitudinal variables (Price & Mueller, 1981).

Confusion about which model variation was most accurate abounded as researchers continued to test several model variations. Earlier content models did not directly examine how the decision process occurred; they only measured hypothetical psychological steps assumed to occur. Follow-up studies suggested a relationship between these steps indicated a certain psychological process occurred. This type of indirect, inconclusive evidence resulted in uncertainty about which steps actually occurred during the turnover process. Little research can be found that attempted to

directly assess the steps employees go through when making quit decisions (Maertz, 1998).

Although no single process model achieved empirical dominance, variations of Mobley's (1977) model were viewed as most influential. Intermediate linkages between affect and turnover, multiple proposed effects for perceived alternatives and affect, a general adaptation-withdrawal process, multiple decision paths, and discontinuous progressions toward quitting were all valuable conceptual advances that added to the turnover body of literature (Maertz, 1998).

Despite the contributions of multivariate models examining either the content or process of the turnover decision, a rather simplistic view of quitting has been portrayed in many models. Earlier models assumed a single, systematic, rational, decision process that has never been directly validated. Lee and Mitchell (1994) stated, "In short, over 17 years of research on the traditional turnover models suggest that many employees may leave organizations in ways not specified by the traditional models" (p. 56).

Since the late 1980s, research on voluntary turnover has moved in a different direction and focused primarily on moderators, macro factors, methodological issues, and further theoretical development (Maertz, 1998). Organizational researchers focused less on individual characteristics after determining they were only moderately related to turnover and did not explain why employees with similar characteristics exhibited different rates of turnover (Cotton & Tuttle, 1986). Studies documented that individual-level factors were most important in their indirect, rather than direct, effects on the turnover process.

A taxonomy was developed in the turnover literature that classified variables into three categories: employee characteristics, external market factors, and organizational perceptions of the work environment (Cotton & Tuttle, 1986; Hom & Griffeth, 1995). It was determined that several variables classified as organizational level perceptions of the work environment, such as organizational commitment, job satisfaction, and stress, were shaped by a combination of individual characteristics and external factors (Mitchell, Mackenzie, Styve, & Gover, 2000).

However, despite the extensive research on predictors and models, empirical relationships between predictors and voluntary turnover behavior has been modest, usually with no more than 25% of the total variance explained. Even the best traditional process models seemed to inadequately reflect the complex nature of an employee's intention to quit (Maertz, 1998).

Cooperative Extension Service

The Cooperative Extension Service (CES) is believed to be the world's largest nonformal educational organization (Fiske, 1989). The system's success in addressing the issues and concerns of changing societies has been widely acknowledged (Seevers et al., 1997). Seamon Knapp was widely recognized as the visionary leader who established the demonstration method that eventually became the national model for a national network of county agents, now called the Cooperative Extension Service.

The Smith-Lever Act of 1914 established CES in the United States as a partnership between the United States Department of Agriculture (USDA) and land-grant universities. State legislation followed, enabling local county governments to become the

third legal partner in the cooperative effort. The original mission of CES was clearly defined in the Smith-Lever Act of 1914 as "to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same..." (Seevers et al., 1997, p. 7). The Extension Service was designed to disseminate teaching and research from land-grant universities to rural residents of the United States.

Morrill Acts of 1862 and 1890 established the land-grant institution system in the United States. The Morrill Act of 1862 gave endowment for the creation of land-grant schools across the country to focus on agriculture education for the industrial class. The second Morrill Act (1890) served as an important milestone in the history of land-grant colleges. The additional funding enabled the colleges to become progressive segments of higher education. While the intentions of the second Morrill Act were to provide for "equitable" distribution of funds between white and black colleges, this did not necessarily occur (Seevers et al., 1997).

The Morrill Act of 1890 led to the establishment of black land-grant colleges. States that were maintaining separate colleges for different races had to propose a just and equitable plan for the division of funds to be received through the new legislation. The states that had used the 1862 funds entirely for the education of white students had to open their schools to black students or provide separate educational facilities for them (Seevers et al., 1997).

This educational system eventually included land-grant institutions in each state, territory, and the District of Columbia. Today more than 130 colleges of agriculture and

57 cooperative extension services enjoy land-grant status, including 17 historically black (1890) universities (CSREES, 2001). In 1994, 29 tribal-controlled community colleges and higher education institutes that have partial land-grant status under the Equity in Educational Land Grant Status Act of 1994 were added to the Extension system (Seevers et al., 1997). Recently, Hispanic-serving institutions were added, bringing the total of land-grant institutions to more than 130 (CSREES).

In Tennessee, Cooperative Extension historically consisted of two entities: (a) The University of Tennessee Agricultural Extension Service (UTAES), which was established as a land-grant university under the Morrill Act of 1862, and (b) Tennessee State University Cooperative Extension Program (TSU-CEP). TSU-CEP obtained land-grant status under the auspices of the 1890 Morrill Act. These educational institutions have retained their land-grant status and currently serve the citizens of Tennessee through the Cooperative Extension System (TSU-CEP, 2001; UTAES, 2001a).

While there is a close working relationship between the two organizations, the missions of UTAES and TSU-CEP differ slightly in focus. TSU-CEP is charged to address the needs of urban and limited resource families, youth, and farmers through education. The UTAES mission is more broadly defined, focusing on education for individuals, families, and communities in general. The missions are complementary, providing a comprehensive framework for the delivery of educational programs focusing on agriculture, family and consumer sciences, youth development, and related areas across the state of Tennessee (TSU-CEP, 2001; UTAES, 2001a).

The cooperative working arrangement between UTAES and TSU-CEP is a unique one that few other states share. A common model that is found in many states provides separate offices, administration, missions, and programs for the two land-grant entities. Working agreements vary from state to state; however, Extension professionals are considered employees of the land-grant university, regardless of where they are located or if other entities contribute to their salaries.

Relevant Theory and Research Literature

In recent years, a limited number of studies have been identified that examined job stress and/or voluntary turnover within the Cooperative Extension System. Therefore, relevant studies from the stress and turnover literature in other work organizations were also reviewed for any insights they might provide.

Job Stress and Voluntary Turnover in Cooperative Extension

Earlier studies focusing on job stress or voluntary turnover in Cooperative Extension produced conflicting results, leaving no clear benchmarks for comparisons with future study results (Carter, 1989; Clark, 1981; Clarke, 1992; Goering, 1991; Rossano, 1985; Sears et al., 2000; Suandi, 1982). Goering (1991) studied stress in female Extension professionals in the Minnesota Extension Service. She utilized the Occupational Stress Inventory to examine roles of ambiguity and coping mechanisms. Study results indicated that Minnesota Extension females experienced no more role ambiguity than did males. They also exhibited similar rational, cognitive coping skills that mediated the impact of felt stress.

Sears et al. (2000) found that a significant proportion of Extension agents reported burnout scores above average levels, but few reported significant symptoms. Study results indicated that extension agents may experience various forms of job stress as their job responsibilities change with time, regardless of their particular demographic and job characteristics.

Carter (1989) surveyed 240 Louisiana Extension agents to examine the relationship between employee turnover intentions and various predictors of turnover, including organizational commitment, job satisfaction, and selected demographic variables. Organizational commitment was determined to be the best significant predictor for turnover intentions. Gender, tenure, job/responsibility change, and spouse's employment were also found to be significant predictors.

In a study conducted by Rossano (1985), the relationship between various factors and the turnover intentions of Ohio Cooperative Extension County agents was investigated. The study utilized the March and Simon theory of turnover (March & Simon, 1958) to examine several individual and organizational variables. Findings suggested that agents in general had low intentions to leave their jobs. They reported moderate levels of job satisfaction, and most perceived themselves to be high performers. However, lower performers had higher intentions to leave their jobs. The resulting best model to predict turnover intentions included overall job satisfaction, satisfaction with co-workers, age, and self-rating of job performance.

Rossano (1985) also concluded that age and tenure were positively related to intention to leave in her study of Ohio Cooperative Extension Service county agents.

These contradictory findings were explained by the researcher in terms of lack of promotional opportunities within the organization.

Organizational commitment of Ohio Extension agents was the focus of a study conducted by Suandi (1982) resulting in the conclusion that age, tenure, and gender were all related to organizational commitment. Females were found to have higher levels of commitment than males.

In 1981, Clark examined the moderating effects of central life interest on turnover intentions of Extension agents and determined that work-centered agents with lower levels of current job satisfaction showed greater intention to leave the organization than agents who were less work-centered who also had lower levels of job satisfaction.

Job Stress and Voluntary Turnover in Other Organizations

Research studies focusing on stress have frequently reported withdrawal behaviors such as absenteeism and turnover as an outcome of stress (Gupta & Beehr, 1979; Kemery et al, 1985). However, investigations on the direct relationship between job stress and turnover were limited (Gupta & Beehr). A few researchers did report the existence of a positive relationship between job stress and turnover (Gupta & Beehr; Jackson & Schuler, 1985); others questioned the direct link (Bedeian & Armenakis, 1981; Mobley, 1977). This group of researchers posited that attitudinal variables such as job satisfaction and organizational commitment were the direct causes of an intention to quit. Their resulting theoretical approach, consequently, asserted the impact of stress on turnover intentions was mediated by attitudinal variables.

Job Stress and Turnover Intentions

The organizational literature also showed disagreement regarding the role of stress in the turnover process. Researchers hypothesized that stress exacerbated the turnover process directly by increasing turnover intentions or indirectly by decreasing job satisfaction (Jackson, Schwab, & Schuler, 1986; Slate & Vogel, 1997). Camp (1994) found that stress was not a significant predictor of turnover for correctional staff at a federal facility. Slate and Vogel, however, reported that stress was significantly related to turnover in a large sample of southern correctional officers. Mitchell et al., (2000) determined that stress was one of the primary causes of turnover in their study of juvenile correction officers. Skyrme (1992) examined work stressors and intent to quit among 158 first-line supervisors and found that work stressors were positively related to intent to quit.

Most models of turnover found in the literature ignored the influence of stress on turnover cognition and behaviors. Fang and Baba (1993) developed a 3-stage model that emphasized the direct relationship of stress and turnover intentions. Their model was supported by empirical investigation of two different samples, validating the role of stress in turnover cognition. These results indicated that stress could be considered a significant predictor of turnover intention. However, the study also supported earlier findings that stress played only a limited role, explaining a relatively small proportion of variance in the intention to quit (16% in the first sample, 7.6% in the second sample). These researchers suggested a more comprehensive model of turnover incorporating stress should be sought.

Fang and Baba (1993) hypothesized the intention to quit could be a direct consequence of stress. They based their support for this perspective on reinforcement theory, which proposes that when followed by an unpleasant consequence, a behavior (such as staying on the job) is unlikely to sustain itself. When the employee perceives the environment as aversive, he or she tends to avoid the situation (by leaving the organization). Quitting is an extreme case of withdrawal behavior and may well be the last option for employees exposed to an aversive work environment on a continuous basis.

Consequences of Turnover

The turnover literature has documented several consequences of turnover for the individual as well as the organization. These consequences and their potential impacts are outlined in this section.

Negative Consequences of Turnover for the Organization

Organizations budget and spend a large amount of resources to attract, train, and retain highly skilled workers (Fiz-enz, 1997). Research indicates that turnover costs occur generally in three areas: (a) economic, (b) disruption in performance, and (c) decrease in organizational morale. Economically, researchers have identified three costs to the organization: (a) separation costs, (b) replacement costs, and (c) training costs (Hom et al., 1992; Moore, 1998). Separation costs are costs resulting from the quitting process, such as paperwork and exit interviews. Replacement costs occur as the organization tries to fill the position left empty by the departing employee. Training costs are incurred by the organization to train replacements and orient them to organizational policies and

processes. Researchers and practitioners have estimated the costs of simply hiring and training a new professional employee to be as high as $10,000 (Fitz-enz), not even considering peripheral expenses associated with the vacancy.

The second organizational cost associated with turnover is the cost in terms of disruption in performance. Sheehan (1993) found that an initial decrease in production resulted when an employee left the organization, but productivity increased once a replacement was hired and trained. Performance could also be disrupted due to inefficiencies on the part of the departing employee before he or she left the organization (Mobley, 1977). In addition, if the departing employee brought unique and valuable experience, skills, and attributes to the position which the replacement did not possess, decreased performance could be prolonged long after the initial separation from the organization (Hom & Griffeth, 1995; Mobley).

The third organizational cost of turnover was determined to be a decline in morale when an individual leaves an organization. Employees who remain may feel frustrated and disheartened by the loss of a valued colleague, or they may feel motivated to leave if they see that alternative jobs rae available (Hom & Griffeth, 1995). Attitudes also decline if the remaining employees compare their jobs to their former colleague's new job and determine theirs to be lacking. The remaining employees may perceive the situation as inequitable and experience decreased morale, which may ultimately affect performance (Sheehan, 1993).

Positive Consequences of Turnover for the Organization

The primary benefit of turnover outlined in the turnover literature is that the exit of poor or marginal performers could improve overall productivity and allow new replacements to bring innovative ideas and technology to the organization (Hom et al., 1992; Hom & Griffeth, 1995). Highly talented new employees with fresh perspectives and innovative ideas could serve to energize the workplace, possibly minimizing decreases in performance over the long run.

Consequences of Turnover for the Departing Employee

A growing number of studies have focused on the consequences of turnover for the departing employee (Hom et al., 1992; Hom & Griffeth, 1995; Mobley, 1977). Hom and Griffeth (1995) suggested:

> attention to negative consequences for leavers may pay dividends for companies. They can forewarn prospective leavers about the full ramifications of their decisions to exit the firm...Such warnings can help prospective quitters to make wiser decisions about changing jobs as well as deter their exits. (p. 30)

Using both empirical and anecdotal evidence, researchers have cited several negative consequences to the individual, including loss of seniority benefits (Mobley, 1982), transition stress in a new job (Mobley), relocation costs and family stress (Mowday, Porter, & Steers, 1982), and disruption of spouse's career (Mobley).

Employees may also experience a number of benefits from leaving an organization. The change could result in a position that better suits the employee's talents and interests (Mowday et al., 1982), pays higher wages (Cascio, 1991), and in some

instances, may provide the chance to spend more time with family (Hom & Griffeth, 1991).

Knowledge of these factors could help administration deter high performers from leaving organizations. However, in the competitive external environment of contemporary society, other organizations may promise many of the positive consequences for an employee if he or she moves to their organization, plus the additional incentive of higher wages, more responsibility, no loss of benefits, and no relocation costs. In order to combat the effects of a competitive environment, administrators and managers need additional tools and understanding of their organizational strengths and assets in relation to its external environment to minimize dysfunctional turnover of high performing employees (Moore, 1998).

Demographic Characteristics

The turnover literature suggested the typical "leaver" is likely to be young, educated, have low tenure with their current organization, and have another job offer on the table (Bluedorn, 1982; Hom & Griffeth, 1995). While research generally asserts that personal characteristics may have an indirect effect on the turnover intentions of employees, there is conflicting evidence. Early studies supported the hypothesis that personal characteristics moderated the relationship between job stress and employee health and behaviors (House, 1974; Kahn et al., 1964). House maintained that "evidence that a result does not generalize across major demographic groups suggest that there are important individual (physiological or psychological) or social environmental variables

mediating the relationships in question" (p. 24). However, the number of published studies supporting these positions has been limited (Beehr & Newman, 1978).

Demographic characteristics also provide a framework for examining the study variables of interest in an investigation. A summary of the research relevant to the demographic characteristics included in this study is provided in this section.

Age

A synthesis of the early turnover literature by Mobley (1982) indicated that existing empirical evidence generally supports a strong negative relationship between age and turnover, with younger workers having the highest turnover rates.

Camp (1994) found that correctional employees who were younger were significantly more likely than their counterparts to quit their positions. Mitchell et al. (2000) found that older correctional staff members were significantly less likely to have stronger turnover intentions, when other variables were held constant.

According to Rossano (1985) age was positively related to the variable intention to leave in a study of Ohio Cooperative Extension agents. This apparent contradiction with established findings was explained by the researcher as possibly related to perceived lack of promotion opportunities within the organization. Suandi (1982) also examined Ohio Extension agents and determined that age was positively related to organizational commitment. The researcher also concluded that age and tenure were closely interrelated.

Gender

Gender has been included as a variable in numerous studies of job stress and voluntary turnover, resulting in mixed outcomes. The literature has not demonstrated a

consistent relationship between gender and length of service (Hom et al., 1992; Hom & Griffeth, 1995; Mobley, 1977). The hypothesized relationship in the literature contended that female employees were more likely to quit than male employees. However, this relationship has not always been supported in the literature (Moore, 1998).

Inconsistencies in occupational stress research focusing on gender were often attributed to sampling problems or limitations in the instruments utilized to measure workplace stress (Spielberger & Reheiser, 1994). Spielberger and Reheiser concluded, however, that gender is extremely important in determining how specific workplace stressors were perceived, and that males and females experienced different stressors, often dependent on their occupational level.

Brown and Woodbury (1995) found similar separation behavior for university faculty men and women. While total separation rates of faculty women generally exceeded total separation rates of faculty men by 50% or more, they concluded the difference was due to differences in appointment types. Whereas less than one-fourth of all faculty males held temporary appointments, nearly one-half of all faculty women held temporary appointments. In this study, the annual separation rate for temporary faculty tended to be about five times the annual separation rate of permanent, tenure system faculty. Tenure faculty males and females had essentially the same low separation rates, while temporary male and female faculty had essentially the same high separation rates (Brown & Woodbury).

Dole and Schroeder (1999) concluded that females did not differ from males with respect to their relationships between personality, job satisfaction, and turnover intentions

in a study of mid-level managers. However, when only the inverse relationship between job satisfaction and turnover intentions was examined, it was found to be stronger among women than men.

Females working in correctional institutions were significantly more likely than their male counterparts to quit their positions (Camp, 1994; Slate & Vogel, 1997). Mitchell et al. (2000) determined that female correctional staff members exhibited higher odds of stronger turnover intentions. The odds of turnover intentions among female correctional staff members were 36% higher than among their male counterparts.

Ethnicity

The job stress and turnover literature does not provide recent documented evidence that ethnic differences exist based on perceptions of job stress and turnover intentions. Relatively few studies have examined ethnicity or race as a significant predictor of job stress and turnover. Dole and Schroeder (1999) noted no significant differences among ethnic groups when they examined personality type, job satisfaction, and turnover intentions of mid-level managers. Jurick and Winn (1987) determined that members of racial minorities were more likely than their counterparts to quit their positions.

Mitchell et al. (2000) reported that respondents identifying themselves as African American or Hispanic exhibited significantly higher odds of stronger turnover intentions than did White respondents in their investigation of juvenile correction officers. African American staff members had approximately 47% greater odds of displaying stronger turnover intentions than did White respondents, when all other variables were held

constant. Hispanics had approximately 69% greater odds of displaying stronger turnover intentions than did White respondents. In the same study, Mitchell et al. found that African Americans and Hispanics reported levels of job satisfaction equal to or higher than those of Whites.

Education

The organizational literature suggests that more highly educated employees may be presented with more alternative employment opportunities, which could lead to increased attrition. Other researchers hypothesized that better-educated employees were more likely to become dissatisfied with the organization or its management, leading to increased turnover intentions (Cotton & Tuttle, 1986). However, education has often demonstrated weak relationships with turnover. While the prevailing hypothesis in the turnover literature contended that employees with higher levels of education were more likely to quit than employees with less education, meta-analytic support for this assertion was weak (r =.04 to r =.09) (Cotton & Tuttle; Hom & Griffeth, 1995).

A significant association between education and turnover intentions of juvenile correction officers was reported by Mitchell et al. (2000). Their study indicated a one-level increase in educational level was associated with approximately a 42% increase in the odds of having stronger turnover intentions when other predictors were held constant.

Job-related Characteristics

The literature provides mixed results concerning the relationship of characteristics, job stress, and turnover intentions. It is generally concluded that any relationship or effect these characteristics may exhibit tend to be occupation-specific.

Generalization of findings across different work environments should be viewed with caution (Bamberger, 1990). An overview of the literature focusing on job-related characteristics relevant to this study is presented in this section.

Job Classification

This study will classify employees of TCES as (a) professional or (b) support employees. Research indicates that different types of employees experience stress differently and in different amounts. Investigations with blue-collar and white-collar workers identified different stressors for each group. Differences also existed between management and professional employee groups and clerical or support staff (Turnage & Spielberger, 1991).

Using an earlier version of the *JSS,* Turnage and Spielberger (1991) examined job stress in managers, professionals, and clerical workers. All groups attributed greater intensity to stressors that reflected lack of organizational support than they did to job pressures. Managers indicated more frequently experiencing job pressures than did professionals, but managers also attributed less severity or intensity to the defined pressures than did professionals. *Lack of opportunity for advancement* and *inadequate salary* were the most pronounced stressors for clerical workers.

Level in Organization

Several studies in the stress and turnover literature have indicated that the level at which an employee works may influence how job stress is perceived, as well as their turnover intentions. Most theorists related this phenomenon to issues of decision-control and authority. Persons with little control or authority to make decisions were more likely

to experience higher levels of job stress and strain (Karasek & Theorell, 1990), as well as increased propensity to leave the organization (Johnsrud, Sagaria, & Heck, 1996).

Spielberger and Reheiser (1994) concluded that the occupational level at which employees worked impacted how they perceived different workplace stressors. They determined that men and women experience work stressors more or less often, depending to some extent on their occupational level.

The level of decision making authority within an organization was found to impact employee attitudes. Individuals tended to exhibit higher job satisfaction and lower turnover intentions as their level of decision-making authority increased (Harrell, Chewning, & Taylor, 1986). This finding provided one explanation for employees in the same work environment reporting very different levels of perceived job satisfaction and turnover intentions.

Johnsrud et al. (1996) reported high turnover rates for mid-level administrators, who are vital to organizational missions, goals, and services. His findings supported previous research on turnover that indicated individuals' intention to stay or leave an organization is influenced by individual as well as organizational variables.

Job Assignment

Due to the numerous job assignments found in various work organizations, research results concerning the influence of job assignment on the perceptions of job stress or turnover intentions of employees are considered as occupation-specific. Findings may not accurately be generalized across occupations where the work environment and job assignments differ.

In an analysis of organizational commitment of Ohio Extension agents by program area, agents reported similar levels of commitment for those with job assignments in agriculture and home economics but reported lower levels of commitment for those working in 4-H assignments (Smith, McCracken, & Suandi, 1983).

Length of Service

The length of time an employee was affiliated with an organization was determined to be a significant predictor of turnover intent in several studies, yet conflicting findings have also been reported. Camp (1994) determined that employees with less service time were more likely to quit their positions than those with more years invested in the work organization. However, Mitchell et al. (2000) found that correctional staff members with more service years displayed significantly higher odds of possessing stronger intentions to leave their positions. In Mitchell's study, each year of service translated into a 3% increase in the odds of stronger turnover intentions.

Mobley (1982) reported that shorter-tenured employees consistently showed a higher level of turnover. Length of service was determined to be significantly higher in the early years of employment. Mobley also reported that length of affiliation had been shown to be one of the best predictors of turnover. Rossano (1985) concluded that length of service was positively related to the variable intention to leave, and suggested this contradictory finding could be due to the perceived lack of promotional opportunities within the organization. However, a review of the stress literature found little evidence that length of service was a significant factor in the stress construct.

Length of Service in Current Position

Length of service in current position was defined as the length of time an employee has been in the position at the time of this study. Earlier studies presented conflicting perspectives on the relationships of service time in current position, job stress, and turnover intentions. The job satisfaction/turnover literature indicated that individuals who experienced relatively low job satisfaction tended to change work positions within the organization (Dole & Schroeder, 1999). Therefore, it could be hypothesized that employees with shorter service in their current positions may also experience stress in significantly different ways than those with more years of service, possibly resulting in increased job dissatisfaction and turnover intentions (Peters & O'Connor, 1980).

Turnover Intentions as a Surrogate Variable for Voluntary Turnover

A review of the recent turnover literature indicates that the "intent to leave" or "intent to remain" variable is routinely relied on in turnover research (Cotton & Tuttle, 1986; Dalton et al., 1999; George & Jones, 1996; Hom & Griffeth, 1995). Turnover intention has also been widely used as an outcome variable in stress research. Jackson and Schuler (1985) found 25 studies that examined the role ambiguity-propensity to leave relationship and 13 investigations that examined the role conflict-propensity to leave relationship. Using meta-analyses to examine these constructs, corrected correlations were found to be significant at the .05 level in both studies (.29 and .33, respectively). Further examination of the results, however, suggested the relationships could be moderated by job type. In their review of the occupational literature, Steel and Ovalle (1984) found that the relationship between employees' intentions to continue or

discontinue employment and actual turnover was significant in every study they reviewed.

There are many reasons for researchers examining organizational issues to often rely on what is termed "surrogate" variables. One major reason could be that use of an "intent to leave" variable allowed the researcher to include all employees as potential respondents, rather than just the few who actually leave the organization (Dalton et al., 1999). Another advantage could be that turnover was considered a dichotomous variable, and did not, therefore, provide opportunities for inferential statistical analysis as did the "intention to leave" variable that can easily be scaled. For effective measurement, turnover often required a longitudinal study design, which was often not feasible.

Many comprehensive models of the turnover process included "intent to turnover" as a mediating state between another independent variable and actual turnover (Hom & Griffeth, 1995; Lee & Mitchell, 1994). Many of the empirical studies, however, did not test an overaching model of the hypothesized process. In place of the comprehensive test, the "intent" variable was used as a substitute for the "actual" variable of interest (Dalton et al., 1999).

Gupta and Beehr (1979) examined the relationship between job stress and turnover, measuring turnover in two ways. First, a "turnover intent" measure was obtained during an interview process. In addition, turnover data were collected during the 18 months following the interviews. Only employees who voluntarily left the company were included. The correlation between turnover intent and turnover was .44; turnover

intent was significantly related to each of the four stresses measured in the study, while turnover was predicted by a single measure–the underutilization of skills.

The impact of situational constraints on turnover intention was examined by Peters and O'Connor (1980). Situational constraints were defined as situational factors that negatively affected performance. The assumption utilized in that study was that constraining environmental factors had a negative impact on satisfaction and this dissatisfaction in turn could lead to turnover. In a later study, O'Connor, Peters, Pooyan, Weekley, Frank, and Erenkrantz (1984) measured turnover by examining company records 18 months after initial data collection to determine which employees voluntarily left the company. They concluded there were no differences in turnover for employees who reported low and medium levels of constraints. Significant differences were found, however, between employees reporting the highest levels of constraints in both the medium and low groups.

Skyrme (1992) examined the relationship of job stressors with work performance, intent to quit, and absenteeism of first line supervisors in a manufacturing setting. Results of the study indicated that intent to quit was significantly and positively related to situational constraints, role ambiguity, role conflict, workload, and total stress.

Some researchers have theorized that stress exacerbates the turnover process directly by increasing turnover intentions or indirectly by decreasing job satisfaction (Jackson et al., 1986; Slate & Vogel, 1997). Slate and Vogel determined that stress was significantly related to turnover in a large sample of southern correctional officers.

While the literature indicated that job stress could be more strongly related to intent to leave than to turnover, the impact on an organization could be as great or greater than if the employee actually left. Dissatisfied or unhappy employees were typically the ones who expressly stated their intent to leave. A study conducted on emotional contagion (Albrecht & Adelman, 1987) proposed that communication about certain topics could arouse negative emotions in others. Therefore, stressed employees had the potential of reducing morale and motivation of coworkers if they expressed their distress verbally (Albrecht & Adelman). In an earlier study on equity theory, Adams (1963) theorized that workers who feel stressed to the extent that they desire to leave the organization could reduce their performance to compensate for their feelings of distress. Adams' theory focused on the importance of values and social comparisons. He contended that an individual's input/output ratio was expected to equal that of referent others in the organization. When the individual's own comparisons indicated unmet expectations, dissatisfaction could occur. At that point, the individual decided whether to adjust inputs to equalize ratios, adjust his or her expectations by selecting a different standard for comparison, or begin exhibiting withdrawal behaviors (Poling, 1990).

Hom and Griffeth (1995) posited the most critical drawback to using turnover intentions as a measure of voluntary turnover is that while turnover intentions tend to be an accurate predictor of immediate turnover, they may predict long-term turnover less accurately. The researchers also suggested that using turnover intentions as a measure of voluntary turnover does not distinguish between employees who quit because of discontent with their positions in an organization from those who quit due to displeasure

with working conditions in a particular career field. Additional measures must be utilized to collect and assess this type of information.

Stress Measurement Issues

One issue consistently identified in the literature as a concern in stress studies was the accurate and effective measurement of job stress. Using a sequential tree analysis of work stressors to explore score profiles of stress measurement instruments, Dewe and Brook (2000) concluded:

1. When considering the relationship between stressors and tension it is important to recognize that while absolute levels of work stressor scores may be low, this is no reason to assume that the stressor-tension relationship will be correspondingly low.

2. Although individuals may report the same overall score for a work stressor, their experience of that stressor may be quite different.

3. These results point to the need to consider the impact that generalizing work stressor scores may have on intervention strategies (p. 1).

This study also pointed out that treating measures of work stressors as if they were unidimensional obscures the real nature of the stressor individuals experienced on the job.

Dewe (1991) also pointed out two areas of concern in stressor measurement: whether stressor events that are measured accurately reflected the nature of the stressful experience, and whether or not the different response categories appropriately captured the basic essence of the stressor event.

The Contemporary Cooperative Extension Service

The Cooperative Extension Service (CES) is unique in several respects. The organization has remained true to the spirit of its original mission developed in 1914 by

the Smith-Lever Act while adjusting its targeted audiences and delivery methods to meet the needs of contemporary clientele (Seevers et al., 1997). Prawl, Medlin, and Gross (1984) revised an earlier profile of the CES that remains an accurate representation of today's organization, and outlines the unique features of the Extension system. The revised profile that follows summarizes the distinctive characteristics of today's Cooperative Extension Service.

1. CES is an agency of government created by federal law.
2. Extension provides services to any person without discrimination.
3. The nationwide organization operates under a cooperative agreement with federal, state, and local governments participating.
4. CES provides non-formal education, distinguishing it from formal education settings.
5. Extension educators use no fixed or mandated curriculum.
6. CES does not confer degrees or diplomas.
7. Extension programs operate informally, utilizing homes, farms, businesses, or community settings as experiential learning environments.
8. The organization utilizes professionals with a wide range of subject matter expertise to facilitate educational programs.
9. CES serves a large and heterogeneous audience in all 50 states.

10. Extension provides programs and subject matter that focus on addressing practical problems and issues for individuals, families, and communities.
11. A variety of teaching methodologies are utilized by Extension personnel in diverse settings and learning environments.
12. Clientele participation in Extension programs is voluntary.
13. The focus of Extension work is broad, yet remains true to the mission.
14. The people with whom Extension personnel work are of the greatest importance.
15. Extension programs are based on the expressed needs and desires of local communities.
16. The education and information provided by Extension is research based.
17. Extension is an equal partner with research and teaching units in the land-grant university system.
18. Extension often utilizes and involves volunteer leaders to help plan, organize, implement, and evaluate educational programs.
19. The Extension structure provides flexibility in programming that is valuable in crisis or emergencies.

In 1997, CES professional staff across the country numbered more than 16,000, with more than 64% located in the 3,154 counties or parishes. The remaining professional staff served as district or state subject matter specialists, program leaders, or

administrators, and was housed in district, regional, or state offices across the state or on land-grant campuses (Seevers et al., 1997).

The federal component of the partnership includes administrative oversight and program and issue-focused professionals within USDA. These professionals coordinate national initiatives, provide input for federal funding processes, provide program leadership and support, and facilitate linkages between USDA and Congress. This unique three-way partnership continues to provide funds from local, state, and federal levels to CES, resulting in a system that has functioned interdependently for almost a century, yet autonomously in funding, staffing, and programming (Seevers et al., 1997).

The philosophy of the Extension system is generally pragmatic and experiential in nature. Extension professionals seek to enable individuals to make their own decisions, and believe in the ability of people to make wise choices. They also value "learn by doing" and work to provide opportunities to apply what has been learned to real life situations (Seevers et al., 1997).

The mission of the CES system has evolved slightly over the years, yet it remains consistent with the original mission as outlined in the Smith-Lever Act of 1914. The mission was recently defined by the Cooperative State Research, Education and Extension Service (1995) as "Extension shall enable people to improve their lives and communities through learning partnerships that put knowledge to work."

Many states have their own mission statements, some with a more focused approach directing efforts toward limited-resource families or specific geographic areas. Other states have emulated the system mission, focusing on the educational process of

"extending the resources of the university out to the people in the state" (Seevers et al., 1997, p. 9).

In the 21st Century, county or area field staff serve as linkages for the translation and transfer of knowledge and technology from the research laboratories at the University to people in local communities. They also serve as educational facilitators, resulting in the empowerment of people to solve their own problems. Cooperative Extension accomplishes its mission by offering practical education for citizens and communities to utilize in addressing critical issues that affect their lives, as well as the nation's future (Seevers et al., 1997).

Research on Relevant Attitudinal Constructs

The importance of organizational factors in influencing attitudes and behaviors of employees has been widely documented in the literature (Cohen, 1993; Taylor, Audia & Gupta, 1996). However, the nature of the relationship between attitudinal variables and behaviors has not been clearly defined. Job satisfaction and organizational commitment have been identified as potential moderators, pre-cursors, or intervening variables in the turnover process in different studies (Camp, 1994; Chang, 1999; Moore, 1998). There is also evidence these attitudinal variables may be negatively related to the perception of job stress (Ivancevich & Matteson, 1980; Moore).

A comprehensive examination of the role job satisfaction and organizational commitment plays in the job stress-voluntary turnover relationship is beyond the scope of this study. However, a brief overview of recent research perspectives on the contributions

job satisfaction and organizational commitment make to the job stress-voluntary turnover relationship is presented in this section.

Job Satisfaction

Job satisfaction has been viewed as an important work attitude that is determined by an employee's perceptions of important work events (Dailey, 1988). It has been included as a variable in numerous models of turnover throughout the years. However, studies that are more recent questioned the role job satisfaction played in the turnover process (Fang & Baba, 1993).

Steers (1988) theorized there are five factors that contribute to job satisfaction: (a) work itself, (b) pay, (c) promotional opportunities, (d) supervision, and (e) co-workers. Poling (1990) examined job satisfaction of faculty members at a land-grant university. He concluded that faculty members had high levels of job satisfaction, self-esteem, and job performance. A strong significant relationship was noted between job satisfaction and perceived organizational/personal values match. A moderate relationship was found between job performance and job satisfaction. The best predictor of job satisfaction was perceived organizational/personal values match.

Mobley's (1977) Intermediate Linkage Model included job satisfaction-dissatisfaction as a link that appeared early in the process of considering whether to quit or to stay in an organization. Numerous studies have also shown negative relationships existed between job satisfaction and work outcomes, such as absenteeism, turnover and turnover intentions (Lee & Mowday, 1987; Rasch & Harrell, 1990). Jackofsky's (1984) model contended that job satisfaction was equivalent to desirability of movement as an

antecedent for the intention to quit variable. Testing of this and similar models have consistently indicated a negative relationship between job satisfaction and an individual's intention to leave an organization.

In their study of juvenile corrections officers, Mitchell et al. (2000) noted that job satisfaction and stress displayed the strongest relationship of all organizational level variables to their dependent variable turnover intentions. Their results indicated that a one-point increase in job satisfaction reduced the odds of stronger turnover intentions by a factor of .20, an 80% reduction, with other variables held constant. A one-point increase in the stress scale increased the odds of having stronger turnover intentions by a factor of 1.62, a 62% increase.

Mobley (1982) pointed out that not all employee turnover was bad; poor performers also leave the organization. However, the loss of valued employees results in direct and indirect costs to the organization. Therefore, it was important for organizations to understand the relationship between job satisfaction and worker outcomes. The consistent negative relationship between job satisfaction and turnover intention outlined the significance of employee job satisfaction to an organization (Poling, 1990).

Mitchell and Larson (1987) proposed two important reasons for understanding job satisfaction and related factors. First, from an organizational perspective, job satisfaction could influence several important work behaviors including absenteeism, tardiness, and turnover. The second reason was that job satisfaction was important for individual employees as they pursued their careers and made career decisions.

Research on job satisfaction has established the variable as important in the study of organizational behavior. It has been linked to work outcomes such as employee turnover, absenteeism, stress, and burnout (Poling, 1990). An understanding of the dynamic relationship among these constructs could provide valuable knowledge to organizational leaders and managers who seek solutions to behaviors negatively affecting work outcomes, as well as the bottom line.

Organizational Commitment

Organizational commitment has been determined to be a relatively stable attitude over time compared to other attitudinal variables such as job satisfaction (Porter, Steers, Mowday, & Boulian, 1974). Researchers have determined that organizational commitment is three-dimensional in nature, and acknowledged affective, continuance, and normative commitment as distinct concepts (Meyer & Allen, 1990). Affective commitment has been the most widely examined dimension of organizational commitment. It was defined by Jaros (1995) as the degree to which an individual is psychologically attached to an employing organization through feelings such as loyalty, affection, or belongingness.

Continuance commitment represents a utilitarian perspective and is based on employee exchanges with the organization. It is based on the assumption that employees invest in the organization by risking something they value. This dimension refers to the commitment associated with the costs that employees relate with leaving an organization (Huselid & Day, 1991). Employees become "continuously" committed to an organization

because the benefits they accumulate from continuing the relationship with the organization increase (Chang, 1999).

Normative commitment refers to the employees' feeling of obligation or responsibility to remain with the organization. This dimension indicated that individuals exhibited certain behaviors because they believed it is the right and moral thing to do. Less research has been completed on the normative dimension of commitment (Meyer & Allen, 1990).

The importance of a variety of organizational factors in affecting attitudes and behaviors of employees has been widely supported in the literature (Cohen, 1993; Taylor et al., 1996). A theory based on the concept of met expectations, first suggested by Porter et al. (1974), stated that attitudes and behaviors are outcomes of a process in which individuals bring a level of expectation to the workplace. The employment situation and employees' attitudes and behaviors are outcomes of a process in which individuals compare their level of expectations with the perceived realities of the work situation. Employees become attached to their companies when their prior expectations are met or exceeded.

A second theory explaining why behavior and attitudes are impacted by organizational factors is that of psychological contracts. Psychological contracts indicate an employee's beliefs about the implied obligations between the organization and themselves (Morrison & Robinson, 1997). The psychological contract was a perceptual belief about what employees thought they were entitled to receive from the organization (Robinson, 1996). After joining the organization, employees decided whether the

company had fulfilled the contract, which then affected their behaviors and attitudes toward the company. When employees felt their employers failed to fulfill their obligations, employees tended to reduce their obligations through increased absenteeism and decreased levels of commitment (Robinson, Kraatz, & Rousseau, 1994).

Commitment phenomena have been widely investigated for the role they are assumed to play in affecting individual attitudes and behaviors in the workplace. Among behaviors, much research has focused on turnover and how it is strongly affected by commitment (Bedeian, Kemery, & Pizzolatto, 1991; Huselid & Day, 1991). Chang (1996) examined the moderating role of career commitment on the relationships between organizational commitment and turnover intentions. These studies concluded that career commitment moderated the effect of affective (organizational) commitment on turnover intentions.

Research has also shown that employees became more committed to an organization when they believed the company was doing its best not to fire employees in times of crisis. The threat of layoffs diminished employee commitment. When the threat of layoff passed, employees became more attached to the organization (Gaertner & Nollen, 1989).

The Job Satisfaction and Organizational Commitment Relationship

Considerable debate still exists in the literature as to the relative contribution of and relationship between organizational commitment and job satisfaction in the prediction of turnover. The general consensus in the literature posited that commitment and satisfaction were negatively related to turnover intentions and represent two key

attitudinal constructs that precede an employee's desire to leave an organization (Jaros, 1995). Consensus was built on several findings regarding commitment and satisfaction that emerged from the literature. Satisfaction and commitment were found to be negatively related to turnover intentions and voluntary turnover (Bluedorn, 1982). Satisfaction and commitment were also found to be positively related to each other (Dougherty, Bluedorn, & Keon, 1985), and turnover intentions were shown to be a strong cognitive precursor to actual turnover (Lee & Mowday, 1987). Despite these findings, discrepancies remained as to the relative contribution job satisfaction and organizational commitment made to the actual turnover process (Moore, 1998).

Several theoretical perspectives have been posited regarding the nature of the job satisfaction and organizational commitment relationship. One influential view contended that organizational commitment mediates the relationship between job satisfaction and turnover intentions (Price & Mueller, 1986). This model proposed that job satisfaction has only an indirect effect on turnover intentions and that it is important to consider the reasons why and how employees become committed to an organization.

A second model of voluntary turnover suggested an opposite relationship in which an employee's commitment to the organization engendered positive feelings about the job and reduced the employee's turnover intentions. This model proposed an indirect relationship between commitment and voluntary turnover through the indirect effects of job satisfaction.

A third perspective proposed that organizational commitment and job satisfaction contribute to turnover intentions in unique ways. This "independent effects" model

asserted these two attitudinal variables are related, but also distinctly different, constructs (Porter et al., 1974). This model did not suggest a causal direction or eliminate the possibility of reciprocal influences between organizational commitment and job satisfaction. Support for this reciprocal model has been exhibited by several research efforts (Cotton & Tuttle, 1986; Hom & Griffeth, 1991; Mathieu, 1991). Mathieu utilized structural equation modeling techniques on a sample of 588 military cadets and found that organizational commitment and job satisfaction were reciprocally related.

Tett and Meyer (1993) examined 155 studies of work attitudes and turnover in order to test the three models outlined above. The researchers concluded that (a) satisfaction and commitment each contribute independently to the prediction of turnover intentions, (b) turnover intentions are predicted more strongly by satisfaction that by commitment, and (c) turnover intentions mediated almost all linkages between work attitudes and actual turnover. These findings reinforce the assertion that organizational commitment and job satisfaction are separate constructs that are significantly related to turnover intentions. However, a causal relationship between the two attitudinal variables cannot be inferred (Moore, 1998).

Critique of Relevant Theory and Research Literature

Numerous studies have examined the linkages between workplace stress and its behavioral consequences, such as turnover (Bamberger, 1990). However, few investigators have examined stress antecedents and consequences in the context of a single, multivariate framework. As a result, very little is known regarding the

spuriousness of identified relationships between stress variables and their consequences (Bamberger).

Another issue was that few investigators have tested the validity of their theoretical models across multiple samples of a single occupation or across a variety of occupations. Therefore, little is known about the robustness of the generic models when used across occupational settings. It should be noted, however, that Turnage and Spielberger (1991) examined with useful results a related issue by using the *JSS* to compare job stress levels of management and professional as well as clerical and support employee groups. They determined the *JSS* to be an effective tool in measuring job stress in both employee groups. The instrument has also been used with corporate, university, and military employees with high reliability results (Spielberger & Reheiser, 1994; Turnage & Spielberger).

Zapf, Dorman, and Frese (1996) argued that because stress research is a multicausal field, causal effects of specific stressors on strain cannot be very high. Their review of longitudinal stress studies summarized methodological aspects of the research process that make it difficult to detect causal effects, even when they exist. The researchers also contended that a small correlation should be expected between the stressor-strain relationship due to the large number of factors that may influence perceptions.

Price and Mueller (1981) were critical of the "lack of inclusiveness" of previous explanatory models of turnover. They proposed a revised model that included job

satisfaction as a key variable, yet its effect on turnover was moderated by the cognitive variable *intent to stay*.

Summary of the Status of the Job Stress and Turnover Literature

Part of the difficulty in studying the concept of stress has been, and continues to be, lack of a clear definition of stress. Ivancevich and Matteson (1980) suggested that definitions of stress offered in earlier research and the popular press could be characterized in three ways: stimulus definitions, response definitions, or stimulus-response definitions. Since 1980, numerous other theoretical approaches or extensions of earlier theories have evolved, each with the researcher's personal definition of stress.

Researchers have continued to explore the multidimensional nature of stress and how the dimensions interact when stress occurs. Cavanaugh, Boswell, Roehling, and Boudreau (2000) studied self-reported work stress among U.S. managers. They identified two distinct dimensions of the stress construct using factor analysis and labeled them as challenge-related stress and hindrance-related stress. Hindrance-related stress was significantly and positively related to negative work outcomes, while challenge-related stress was significantly and positively related to positive work outcomes. Further research is necessary to clarify the relationship of these stress dimensions, as well as their respective triggers.

There continues to be no clear understanding of whether or not job stress is experienced differently by males and females. Several researchers have concluded there is little evidence that gender influences stress symptoms in the work setting. DiSalvo, Lubbers, Rossi, and Lewis (1994) observed, "from a broad perspective, men and women

perceive stressors quite similarly. No gender differences were found in the overall clusters (of stressors)" (p. 48). Jick and Mitz (1985) hypothesized that there may be difficulty in measuring and identifying gender-related differences in job stress due to sampling issues. They pointed out the usual male over-representation in managerial positions, while more women held clerical and service jobs. In their literature review, they noted several gaps and inconsistencies concerning the study of the gender-stress relationship.

Spielberger and Reheiser (1994) also used the *JSS* to examine gender issues in university and corporate work settings. They concluded that men and women experienced similar overall stress levels, but several gender differences were identified in the perceived severity and frequency of occurrence of individual stressors.

Little empirical research has been conducted on the Cooperative Extension System in recent years, even though it continues to thrive in every state in the country, employing more than 16,000 workers. Each autonomous state organization is confronted with the same contemporary issues as other businesses and organizations: continual change, restructuring, downsizing, increased accountability, and increased competition from new players in the "knowledge business."

Researchers have reported inconsistent findings over the years in the study of stress as well as turnover in Extension and other settings. In spite of the large number of studies that have been conducted in a variety of work settings, few generalizations or causal linkages can be established between stress antecedents and workplace consequences.

Researchers have been only moderately successful in predicting turnover in organizations. A number of gaps in the research literature may have contributed to this issue. Moore (1998) contended there was a need for tests of integrated models of employee turnover that included both cognitive and structural variables when assessing an employee's likelihood of leaving an organization. Integrated models allow the consideration of a variety of variables and their relative contribution to the turnover process. Variables such as specific job factors, organizational factors, environmental factors, and individual reactions to these factors may all play a role in the turnover process and warrant investigation (Moore).

A number of more specific gaps also exist in the literature. Moore (1998) posited that gaps exist in the following areas: (a) the exclusion of several relevant structural factors in the development of turnover models; (b) the lack of consistent and systematic examination of key moderators of the turnover process; (c) lack of theory development; and (d) sampling and generalizability issues. Each of these gaps has hampered researchers in their ability to accurately predict turnover behavior.

Researchers have often pointed to a lack of understanding regarding the potential moderators between aspects of the job and work environment, attitudinal reactions, and voluntary turnover (Hom & Griffeth, 1995; Jaros, 1995). These moderators included professional category, occupational type, and perceived job alternatives. Hom and Griffeth suggested that "Many moderator tests indicate that effects of [the] determinants [of turnover], and the direction of those effects, vary across situations and populations" (p. 50).

In a more general sense, Moore (1998) suggested the body of turnover research was in need of enhanced theoretical development. While numerous models of turnover rely on theory to provide support for components of the model, such as the Equity Theory in support of compensation (Adams, 1963), no overarching theory existed to guide contemporary turnover research. Turnover is understood as a complex, multifaceted, and multi-dimensional phenomenon. Continued synthesis and validation of key facets and variables influencing turnover could provide comprehensive theories to guide future model development (Moore).

Researchers identified the need to expand the types of samples involved in turnover studies. Many studies documented in the turnover literature have focused on non-professional employees (Hom & Griffeth, 1995). Many of the theoretical inroads have been made using samples of nurses or other hospital employees (Price & Mueller, 1986). Hom and Griffeth argued that the turnover process is different in different employee populations and occupations. Additional research utilizing heterogeneous samples and diverse segments of the working population is needed to provide a broader understanding of the true nature of the turnover process (Moore, 1998).

Contribution This Study Makes to the Literature

This study was designed to investigate the nature of job stress and its relationship with voluntary turnover within a contemporary Extension system. The *JSS* (Spielberger & Vagg, 1999) was utilized to identify specific stressors, as well as their frequency of occurrence and intensity. The role of job pressures and lack of organizational support in the system was also examined. The relationship of job stress and turnover intentions was

investigated to provide useful insight seeking solutions to costly turnover and workplace stress.

The *JSS* was designed to address earlier measurement concerns identified by researchers at a time when studies were narrowly focused on a single theoretical approach and/or useful only in blue-collar settings. The *JSS* integrates perspectives from the PE-Fit Theory and the Transactional Process Theory by considering the "fit" of the person with the environment, as well as the frequency and severity of specific workplace stressors that individuals experience. While this instrument is a generic measurement of job stress, it has been validated for use with clerical, management, and professional employees, university faculty, and the military. Scores from the *JSS* provide comprehensive measurements of job stress as perceived by Extension employees.

This investigation provides a contemporary look at a public sector organization and how perceived job stress may impact employees and their turnover intentions. Turnover continues to be a critical issue for Extension and other public sector organizations as they increasingly compete with the private sector for workers to staff key positions.

Findings from this study also provide insight into the complex role gender may play in the job stress-turnover relationship. While the sample of employees from the support group was mostly female, the professional employee group consisted of 53% males and 47% females. Therefore, this study provided a unique opportunity to examine gender issues as they relate to job stress and turnover intentions in a setting with more nearly equal sample sizes in the professional job classification.

This study also provided the chance to examine how job stress was perceived by two groups: (a) administrative and professional employees, and (b) clerical and support employees working in the same organization. This situation presented the opportunity for examining how work-related stress may influence turnover intentions of the groups in unique ways. Few recent studies have been documented that examined job stress and turnover intentions for two employee groups from the same organization.

The results of this study have implications for Extension organizations across the country as administrators and human resource professionals design and re-design jobs, structures, and processes for the future to ensure a healthy work environment and reduce the costly turnover of valuable employees. These study results provide benchmark data for future assessments and investigations, as well as useful information for designing and implementing organization-wide stress interventions.

Summary

A review of the occupational stress and turnover literature presented in this chapter included an historical overview of the theory and research that has served as the foundation and framework for many investigations in the fields of work-related stress and voluntary turnover during the past 60 years. Historical perspectives of the stress concept, occupational stress, voluntary turnover, and the Cooperative Extension Service were presented.

Contemporary literature relevant to this study was also examined, focusing on job stress and voluntary turnover in Cooperative Extension and other organizations, as well as the relationship between job stress and turnover intentions. The literature addressing

the consequences of turnover for work organizations and individuals was also examined, as were the demographic and job-related variables historically considered to play some significant role in the job stress-turnover intentions relationship.

An examination of the literature focusing on the use of turnover intentions as a surrogate variable for turnover lends credence to this method for measuring voluntary turnover. In addition, stress measurement issues noted in previous research were identified and reviewed.

A review of research in cognate areas relevant to this study was also included, focusing on the two attitudinal variables job satisfaction and organizational commitment. Both of these variables have been included in many turnover theoretical models; therefore, their role in the job stress-voluntary turnover relationship warranted examination.

This chapter concluded with sections that critiqued the relevant theory and research literature, followed by a summary of the status of the job stress and turnover literature. The final section outlined contributions this study makes to the established body of job stress and turnover literature.

CHAPTER III

RESEARCH METHODS AND PROCEDURES

The design of this cross-sectional study was descriptive and correlational, with multiple independent variables and dependent variables. The independent variables examined in the first phase of this investigation included scores derived from the *Job Stress Survey (JSS)* (Spielberger & Vagg, 1999), including *Job Stress Index*, *Job Pressure* subscales, and *Lack of Organizational Support* subscales, as well as the attitudinal variables job satisfaction and organizational commitment. Voluntary turnover as measured by the surrogate variable "intention to quit" was examined as a dependent variable to determine how it may have been influenced by the independent variables.

A second phase of the statistical analysis utilized scores from the *Job Stress Survey* (Spielberger & Vagg, 1999) and turnover intentions scores as dependent variables in a series of univariate and multivariate analyses of variance calculations to determine if significant differences existed among employee groups. The demographic variables of gender, age, ethnicity, and educational level were utilized as independent variables, as were the job-related variables of length of service in the organization, length of service in current position, job assignment, job classification, and level in the organization. Follow-up post hoc analyses were utilized to identify where differences actually existed.

Specific Procedures

The researcher submitted a request to the Institutional Review Board and Human Subjects Committee of The University of Tennessee for permission to conduct this study

and utilize Form A. After authorization was received, a plan for conducting this study, including identification of the sample and data collection, was presented to the directors of UTAES and TSU-CEP. Following the presentation, both directors agreed to endorse this study and encourage employee participation.

Following random selection of the sample, the two Extension directors sent email letters (Appendix A) to all Extension personnel endorsing the study as important for their organizations and encouraging those who received the questionnaires to participate. Two weeks later, the researcher sent an email advance notification of the study (Appendix B). Packets were developed for each study participant and included a cover letter (Appendix C) from the investigator introducing the investigation. The letter provided details concerning the purpose and objectives of the study, an informed consent statement indicating that participation was voluntary, instructions on how to participate, and assurance of complete confidentiality for all study participants. Detailed instructions for completing and returning the requested information was provided, along with a self-addressed stamped envelope to facilitate ease in returning the questionnaires. Participants received packets approximately 15 days after the advance notification was received.

A copy of the self-carboning *JSS* test booklet and the supplementary questionnaire (Appendix D) was provided in each packet. An identification number system was utilized with each packet in place of names to track responders and non-responders so follow-up efforts could be made to strengthen return rates if needed.

A general follow-up email (Appendix E) was sent two weeks after mailing the questionnaires to all individuals who were selected to participate in the study. Two weeks

later, personal email letters (Appendix E) were sent to non-responders to encourage their participation, and offering a second packet of materials in the event their packet had been lost or destroyed. A final deadline for participation in the study was also included. This communication resulted in eight requests for a second packet and an ultimate return of 16 additional surveys, for a total return of 334. One survey was returned as undeliverable. The procedures outlined by Dillman (2000) for use with mail surveys were modified in this investigation to take advantage of electronic communication. Access to email addresses for all study participants provided increased opportunity for encouraging participation.

The advance letter of notification, the follow-up letter to all study participants, and the personal letter to all non-respondents were sent via email to personal addresses. The packets including the surveys and cover letter were sent to UTAES employees via the inter-office mail system to study participants' office addresses. Packets sent to TSU-CEP employees were mailed via the U.S. Postal Service to the recipients' office address. Follow-up mailings containing additional copies of the surveys were also sent via the U.S. Postal Service.

Population

The population for this investigation was employees of the Tennessee Cooperative Extension System. The Cooperative Extension System in Tennessee consists of The University of Tennessee Agricultural Extension Service (UTAES) and Tennessee State University (TSU-CEP). At the time of this study, UTAES employed 440 professional employees and 344 clerical and support employees in 95 county offices

across the state, 4 district offices, and a state office on the UT Knoxville campus. TSU-CEP supported 11 administrative and professional employees and 9 clerical and support employees in 11 county offices, as well as 11 administrative and professional employees and 7 clerical and support employees at the state level on their Nashville campus, for a total of 38 employees. A combined total of 822 professional employees and support staff meeting the study criteria were employed by TCES at the time of data collection (C. Chesney, personal communication, December 15, 2001; H. Byrd, personal communication, November 10, 2001; UTAES, 2001b).

While the two Extension organizations in Tennessee operate under autonomous administration, budgets, and university policy and procedures at the state level, county personnel, both professional and clerical, were housed together in selected county Extension offices. Local funding provided office space, utilities, and other support. County staff from UTAES and TSU-CEP planned and implemented county programs as a team, working together to accomplish program goals.

Sampling Frame

The sampling frame for this study included all employees of UTAES and TSU-CEP who worked 30 hours or more (non-exempt) or held a 75% or larger Extension appointment (exempt) at the time of data collection. Employees from professional and clerical or support positions at the county, district, and state levels of the organization were included in the study.

In Tennessee, as in most states, Extension personnel are generally classified into one of five roles: administration, subject matter or program specialists, county agents,

paraprofessionals or program assistants, and clerical or support (UTAES, 2001b). Administrators were found at the state, district, and county levels in Tennessee. State administrators were located on the campuses of the land-grant universities. A district director was employed in each of four districts to provide leadership to 21-27 counties and county directors within its boundaries.

The Tennessee Extension network served all 95 counties. Each county had a county director to handle administrative duties; this person also had programmatic responsibilities. The number of county staff varied, depending on a county staffing plan that considered county population and other variables (UTAES, 2001a), and ranged from 1 professional staff member to 10 or more in larger urban areas.

The county Extension agent is considered the heart of the system. Professional staff members work at the local level with community representatives, clientele, and program partners to identify, design, implement, and evaluate educational programs that meet local needs. While the official job title for county professional staff in Tennessee is "Extension Agent," the audience they work with often defines their job assignment. Most Tennessee county Extension agents' job assignments fall in one of the following categories:

1. Adult agriculture
2. Adult agriculture/4-H Youth Development
3. Adult agriculture/County Director
4. Adult Family & Consumer Sciences
5. Adult Family & Consumer Sciences/4-H Youth Development

6. Adult Family & Consumer Sciences/County Director
7. 4-H Youth Development
8. 4-H Youth Development/County Director
9. Other combinations of job assignments

In some counties, additional staff was enlisted by hiring paraprofessionals or program assistants. These staff members were supervised by an Extension agent in their defined program work area and may or may not have obtained a college degree. They frequently coordinated activities, organized resources, and assisted with program maintenance functions. In many cases, they also served in programmatic roles by assisting with educational program development and delivery (Seevers et al., 1997).

Clerical and support staff serve a vital function in the Extension organization and are located at all levels of the organization. Often, receptionists and office assistants are the first contact clientele have with the Extension organization. While the clerical and support staff may assist other staff in the office or unit, direct supervision is usually provided by the county director, district director, department head, or state director. Like professional employees, clerical and support staff are employees of the land-grant university system (Seevers et al., 1997).

Subject matter specialists are considered experts in their assigned field and are trained to translate and disseminate research-based materials (Seevers et al., 1997). They provide an important link between the university resources and county staff. In addition, they are responsible for providing training programs to update county staff in their areas of specialty, as well as work with district program leaders and county staffs to design,

develop, and evaluate priority programs targeted to identified county needs. Many specialists also conduct research in their assigned areas. State-level administrators, either an associate dean or department head, supervise specialists.

While most specialists in the Tennessee system are located at the state level, others are housed in district offices across the state. 4-H Youth Development specialists, technology specialists, and others in a variety of subject matter areas are located in one or more district offices. Area specialists have been assigned to work in a select group of counties, focusing on their specialization. They are located in one of the counties they serve (UTAES, 2001b).

Research Sample

After developing computer-generated listings of all professional and support employees and their addresses sorted by job classification (professional or support) from both universities (C. Chesney, personal communication, December 15, 2001; UTAES Employee Database, 2001), a stratified, proportionate random sample was drawn. Stratified sampling is used to select a sample that identifies particular subgroups in the population (Gay & Airasian, 2000). The sample for this study was stratified based on job classification (professional or support). Information concerning the level at which employees worked and their specific job assignments was collected as a self report item on a supplementary demographics questionnaire (Appendix D).

At the time the research sample was drawn, 822 TCES employees met the study criteria and were included in the sampling frame. Four hundred and sixty-two employees were classified in the professional stratum, while 360 fell in the support category.

According to Gay and Airaisan (2000) a sample size of 265 was needed from a study population of 850 to maximize generalizability and minimize the risk of Type I error. Therefore, a minimum sample size of 265 was deemed by the researcher as a viable minimum sample for the total sample. The authors further suggested if the study population was "in the neighborhood" of 500, a 50% sample should be drawn, and also suggested the use of more participants when possible, as any differences between groups are more likely to be identified when sample sizes are large. Therefore, a 50% random sample was drawn from each stratum, resulting in a sample size of 231 professional employees and 180 support employees. This plan resulted in sampling a total of 411 employees—50% of all employees from each stratum who met the study criteria at the time this study was initiated.

Utilizing the *random numbers* tool in EXCEL (Microsoft Office XP, 2001) each participant included in the sampling frame was assigned a random number. A Table of Random Numbers (Gay & Airasian, 2000) was then utilized to identify study participants to be included in each stratum.

To facilitate a high return rate, a modification of Dillman's (2000) strategy of contacting study participants a minimum of four times was utilized. Dillman reported that an average 74% return rate was found when 48 mail surveys were examined. He contended that higher return rates were obtainable if a minimum of four contacts was made with study participants. Dillman also suggested that government entities and public institutions should expect higher return rates than private corporations and industries. As a result of this process, a return rate of 81% was obtained in this study.

Instrumentation

Two questionnaires were utilized to collect self-reported data for this study: (a) the *Job Stress Survey* (*JSS*), and (b) a supplementary questionnaire that incorporated scales to measure *intent to turnover*, *job satisfaction*, and *organizational commitment*, as well as demographic and job-related information. The following sections provide an overview of the instruments, scales, and subscales used to collect relevant information.

Job Stress Survey

The *Job Stress Survey* (Spielberger & Vagg, 1999) is a self-reported generic measure of occupational stress experienced by men and women. It has been validated across a broad range of business, industry, and educational work settings. In this study, it served as the key tool for collection of job stress data.

The *JSS* (Spielberger & Vagg, 1999) consists of 30 items that (a) describe generic, job-related stressor events, (b) focus on work situations that often result in psychological strain, and (c) assess the perceived severity and frequency of occurrence of the 30 stressor events during the past six months. A 9-point scale was utilized to rate the perceived severity of each stressor event by comparing it to a standard stressor with a midpoint value of 5. The standard item utilized by the *JSS* was "assignment of disagreeable duties" (Spielberger & Vagg, p. 10). The second step undertaken by respondents was to use a scale of 0 to 9+ days to report the frequency of occurrence for each stressor during the past six months. Scores for job stress severity and frequency were derived from these data for the *Job Pressure* and *Lack of Organizational Support* subscales. Index scores, based on the product of the severity and frequency

measurements, provided estimates of overall levels of job stress, job pressure, and lack of organizational support experienced by study participants.

Factor analysis was used to examine *JSS* scale and subscale scores of men and women from a variety of work settings (Spielberger & Vagg, 1999), with the two major components of job stress consistently identified as *job pressure* and *lack of organizational support*. The *JSS* utilized integrated 10-item subscales for measuring these critical components of occupational stress, which evaluated the pressures associated with the job, as well as lack of support the employee received from an organization's administrative policies and procedures, supervisory personnel, and coworkers.

The *Job Pressure* subscale was used to evaluate the job stress experienced by study participants that can be most directly attributed to the pressures of working overtime, meeting deadlines, excessive paperwork, and other aspects of the job's structure, design, or duties that resulted in stress. The *Lack of Organizational Support* subscale assessed occupational stress that resulted from relationships with supervisors, lack of opportunity for advancement within the organization, or poorly motivated coworker support. This subscale reflected stressors that involve interaction with other people or policies and procedures, rather than specific job aspects.

The *JSS* scales, subscales, and 30 individual items (stressors) provide useful information to organizations like UTAES regarding inherent sources of occupational stress. Each stressor represents a specific job-related event; therefore the data can assist in identifying specific aspects of jobs and the work environment that adversely impact individual employees, may be good targets for interventions such as training, job

redesign, organizational change efforts, or other efforts to effect positive change. The *JSS* also identifies sources of stress for groups of workers where stress levels for employees in different job assignments or at different levels within the same organization can be compared.

The reliability of the *JSS* has been well documented in the literature by its authors (Spielberger & Vagg, 1999) where it has been utilized with a variety of employment groups. Extensive examination of the internal consistency reliability of each of the *JSS* scales and subscales has resulted in strong evidence that this instrument can effectively be utilized with heterogeneous samples of corporate and university personnel working at higher and lower occupational levels. Alpha coefficients for the nine *JSS* scales and subscales were consistently reported to range from .80 to .91 for male and female managerial and professional employees, and from .82 to .93 for clerical and skilled-maintenance employees (Spielberger & Vagg, 1999, pp. 16-18).

Normative data were obtained by administering the *JSS* to heterogeneous samples of 2,173 adults, which included 1,218 males and 955 females who were employed in university, military, business, and industrial settings. The normative samples utilized in validating the *JSS* included 393 managerial, professional, and clerical employees working at corporate headquarters of two large industrial companies. It also included 1,398 administrators, faculty, and staff associated with a large state university located in an urban setting, and 382 senior military officers who were participating in a special training opportunity (Spielberger & Vagg, 1999). The normative data were utilized in this study to provide benchmark scores for comparison with similar TCES employee groups.

The *JSS* was selected for use in this study after a review of several other instruments that have been utilized in earlier investigations examining work-related stress. One of the most frequently cited instruments in the job stress literature was the *Occupational Stress Inventory (OSI)* (Osipow & Spokane, 1987), a generic measure for assessing P-E Fit variables (e.g., role overload and role ambiguity), along with physical strain, coping skills, and social support. This instrument utilizes three major dimensions to examine work-related stress: occupational role stress, personal strain, and personal coping resources. Individual responses on the *OSI* provided information about both general and specific sources of work-related stress. However, the instrument did not assess the perceived severity or frequency of the stressors. In addition, several researchers have identified as an important limitation of this instrument the insufficient normative studies and data available reported in the test manual (Bunda, 1992; Cochran, 1992).

Cooper, Sloan, and Williams's (1988) *Occupational Stress Indicator* (*OSI-2*) was also examined. This instrument incorporates aspects of P-E Fit Theory, including the Demand-Control Model, as well as Lazarus's Transactional Process Theory. One of its major strengths is the comprehensiveness of the instrument in evaluating specific work-related stressors, as well as job satisfaction, personality, coping strategies, and physical and mental health issues. However, because of its comprehensiveness, administering the *OSI-2* requires a lengthy time period, including a major time commitment from participants. In addition, several of the individual items on the *OSI-2* were found to be complex and lengthy, often inquiring about more than one content area in a single item. This often results in difficulty in interpreting results. Spielberger and Vagg (1999) noted

that some of the dimensions measured by the *OSI-2* could be measured more effectively by other instruments that focus specifically on that particular variable, such as individual differences in personality. Reliability coefficients ranged from .57 to .93 for the subscales of the *OSI.*

The *Job Diagnostic Survey* (*JDS*) (Hackman & Lawler, 1971; Hackman & Oldham, 1975) has been cited more often in the research literature than any other measure of occupational stress (Spielberger, Reheiser, Reheiser, & Vagg, 1999). The original *JDS* was revised and shortened to 15 items that focused on five job dimensions: skill variety, task significance, task identity, autonomy, and feedback. The revised instrument provided information relevant to workers' feelings about their jobs but did not inquire about either the perceived severity or frequency of specific work-related stressors. This instrument was eliminated from consideration since the collection and measurement of severity and frequency data was necessary to support the theoretical model guiding this study.

Supplementary Questionnaire

A supplementary questionnaire (Appendix D) was developed to accompany the *JSS.* It included the *Intent to Turnover Scale,* the *Job Satisfaction Scale*, and the *Organizational Commitment Questionnaire,* as well as demographic and job-related questions. An overview of these data collection tools is presented in the following sections.

Intent to Turnover Scale

To assess the *intent to turnover* construct, a 3-item, 7-point Likert scale derived from the *Attitudinal Work Module of the Michigan Organizational Assessment Questionnaire* (*MOAQ*) (Cammann et al., 1983) was utilized to measure employees' voluntary turnover intentions. Three questions were included on the supplementary questionnaire to measure *intent to turnover*:

1. I often think about quitting.
2. I will probably look for a new job in the next year.
3. It is likely that I will actively look for a new job in the next year.

This scale demonstrated reliability coefficients (Cronbach's Alpha) of .83 with more than 400 study participants from three different organizations (Cammann et al., 1983). In addition, more recent studies have successfully utilized the scale, reporting similar levels of reliability (Collins & Killough, 1992; Hochwarter, Perrewe', Ferris, & Guercio, 1999; Hochwarter, Perrewe', & Kent, 1995; Larson, 1997; Lee & Ashford, 1993; McKee et al., 1992).

The *MOAQ* was selected for use in this study based on several criteria: (a) its relatively high levels of reliability established in earlier studies, (b) the global nature of the scale that measured voluntary turnover intentions, and (c) the brevity of the scale, which included three items. Length was a consideration since this scale was utilized in conjunction with other instruments. The researcher sought to keep the supplementary questionnaire to one page in length to facilitate respondent participation, as research indicates that shorter surveys may result in a higher rates of return (Dillman, 2000).

Other measures of voluntary turnover considered for use in this study included a 6-item scale from the *Minnesota Satisfaction Questionnaire* (Weiss, Dawis, & England, 1967) with a reliability coefficient of .93, and a 7-item scale developed by Mobley, Horner, and Hollingsworth (1978), which had exhibited reliability coefficients of .91. While both scales fit many of the study parameters and exhibited high reliability coefficients, the length of the scales was a consideration as a final decision was made. The researcher also found fewer citations in previous turnover studies utilizing these measures. Other studies utilized single-item measures of turnover intentions (Leong, Furnham, & Cooper, 1996; Parasuraman, 1982) and often inquired only as to how long the employee intended to continue working in the organization. Since this study focused on a more global view of turnover intentions, these measures were eliminated.

Job Satisfaction Scale

Job satisfaction perceptions were assessed using a 3-item global measure from the *Michigan Organizational Assessment Questionnaire* (Cammann et al., 1983). This scale demonstrated a .77 ($p < .01$) reliability in use with over 400 study participants from three different organizations. Other more recent studies also used this scale and reported high reliabilities (Larson, 1997; Lee & Ashford, 1993). The questions were intended to provide an indication of the organization members' overall affective responses to their job. The three questions included on the supplementary questionnaire to measure job satisfaction were:

1. All in all, I am satisfied with my job.
2. In general, I don't like my job (reverse scoring).
3. In general, I like working here.

The global measure of job satisfaction from the *MOAQ* was selected for use in this study based on documented levels of high reliability and the fact that the measure had been utilized with a variety of occupations. In addition, brevity was an issue since the researcher's goal was to limit the supplementary questionnaire to a single page. While earlier research has shown the job satisfaction construct to be multi-dimensional, assessing the individual dimensions of job satisfaction was not the focus of this study. Therefore, a global measure was deemed to be more useful in this study.

Other measures of job satisfaction that were considered for use in this investigation included the 5-item scale developed by Price and Mueller (1986), which addressed the five widely recognized dimensions of job satisfaction: degree of job satisfaction with (a) work itself, (b) coworkers, (c) supervision, (d) promotional opportunities, and (e) pay. This scale has generally resulted in reliability coefficients of .75, slightly lower than the reliability of the job satisfaction from the *MOAQ*. Also, the multi-dimensional nature of this scale focused on specific issues rather than the general perception of job satisfaction examined in this study.

Also considered for use in this study were two items derived from the *Job Diagnostic Survey* (Hackman & Oldham, 1975). This scale exhibited a reliability of .70, also lower than the reported reliability of the *MOAQ*. Weiss et al.'s (1967) 6-item scale was also examined and exhibited a high reliability (.93). However, the length of the scale was of some concern, as was the fact that few studies could be identified that reported utilizing this instrument.

The final instrument considered to measure job satisfaction for this study was the *Job Descriptive Index* (*JDI*), which was developed by Smith, Kendall, and Hulin (1969).

The *JDI* also measured five facets of job satisfaction, with reliabilities for each subscale ranging from .79 to .85. However, the multifaceted nature of the scale, as well as its length, precluded its use in this study.

Organizational Commitment Questionnaire

The attitudinal variable *organizational commitment* was measured by use of a 9-item global measure developed by Mowday, Porter, and Steers (1979). The scale assessed the intent to continue to work for the organization, willingness to exert effort on the job for the organization, and the extent to which the goals of the organization were compatible with the individual's goals. Alpha coefficients of .83 were obtained for this scale when utilized by Hendrix and Spencer (1989), and .92 in Elangovan's 2001 study. The 9-item *Organizational Commitment Questionnaire* (*OCQ*) consisted of a scaled-down version of the 15-item original scale developed by Mowday et al. Their studies indicated the 9-item scale resulted in a reliability coefficient of .90 for a group of classified university employees, similar to reliability levels for the 15-item scale, which ranged from .82 to .93 when used with a variety of employee groups (Mowday et al.).

Other instruments that assess organizational commitment were examined for use in this study. However, many of the instruments treated organizational commitment as a multidimensional construct. In this study, organizational commitment was treated as a unidimensional variable; therefore, a global measure to collect commitment data was necessary.

One measure examined was the 8-item scale developed by Allen and Meyer (1990). While this scale had reported reliability coefficients of .87, the scale measured only the affective commitment dimension and was therefore eliminated from

consideration. Allen and Meyer's comprehensive measure of organizational commitment examining the three dimensions of organizational commitment was too lengthy to be included in this study. Since organizational commitment was treated as a unidimensional construct for the purposes of this study, a more global measure of organizational commitment was sought.

Reliability coefficients were calculated in this study for the *Job Satisfaction* and *Intent to Turnover* scales, and the *Organizational Commitment Questionnaire*, since documentation of their reliability was based on a collection of diverse studies focusing on a variety of employee groups in the literature. The resulting Cronbach's Alphas ranged from .81 for the *Job Satisfaction Scale*, to .86 for the *Intent to Turnover Scale*. The *Organizational Commitment Questionnaire* fell in between, with an alpha coefficient of .82.

Measures of job satisfaction and organizational commitment were utilized in this study to collect data to allow the researcher to examine any influence or effects these attitudinal variables may have exerted on the job stress-turnover intentions relationship. A comprehensive examination of these constructs fell beyond the scope of this study.

Demographic and Job-related Information

Four questions were utilized to collect self-reported demographic information on the supplementary questionnaire; the questions focused on age, gender, ethnicity, and educational level. Job-related information associated with job classification, length of service with TCES, length of service in current position, level in the organization, and job assignment were also self-reported on the questionnaire. This demographic and job-

related information provided the data necessary for the researcher to develop a descriptive analysis of the study sample.

Data Collection

The *Job Stress Survey* (Spielberger & Vagg, 1999) and a supplementary questionnaire were utilized to collect all data for this study. Identified study participants self-reported their perceived levels of stress, demographic characteristics, job-related characteristics, turnover intentions in the next 12 months, job satisfaction, and organizational commitment, then returned their completed questionnaires to the researcher in a self-addressed, stamped envelope.

Data Analyses

Descriptive statistical analyses were performed on all data, including means, standard deviations, and frequencies. Analysis also included graphical displays of the data to interpret more accurately the distribution of the responses for each item, scale, and subscale. An alpha level of .05 was used to determine significance for all statistical tests.

Following an examination of the data to determine whether or not it was normally distributed, the researcher determined that responses for individual measures of stress were not normally distributed. Therefore, Spearman rank correlation, a non-parametric test, was utilized to examine relationships involving individual stressor scores. Based on a review of the graphical data, the assumption was made that data obtained from the scales and subscales of the *JSS* were normally distributed. A similar review of data collected with the *Intent to Turnover, Job Satisfaction*, and *Organizational Commitment* scales led to the determination that the data from the *Intent to Turnover* and *Job Satisfaction* scales were not normally distributed, while the *Organizational Commitment*

data were normally distributed. However, due to the relatively large sample size utilized in this study, the researcher made the assumption that the central limit theorem came into play, assuming that the distribution of the mean would become *approximately* normal as *n* increased (Iman, 1994). To test this assumption, both Pearson *r* and Spearman rank correlations were conducted on the data. The results were similar in all cases. Since more conservative values were noted using the Pearson *r* analysis, it was utilized throughout the study to examine relationships among the scale scores and variables of interest.

Pearson *r* correlations and multiple regression analyses were utilized to identify relationships between the *JSS* scales, subscales, the turnover intention construct, the demographic and job-related variables, and the attitudinal variables of job satisfaction and organizational commitment. This analysis also was useful in examining the data for multicolliniarity, which could significantly impact study outcomes should any independent variable be significantly related to another independent variable. In multiple regression analysis, multicolliniarity exists when two or more independent variables are highly correlated, making it difficult if not impossible to determine their separate effects on the dependent variable (Vogt, 1999).

The researcher used Pearson *r* correlations, Spearman rank correlations, and simultaneous multiple regression analysis to measure the strength of any associations that existed between variables and to address the research questions guiding this study. The independent variables examined in this phase of the analysis included the three *JSS* scales and six subscales and the attitudinal variables job satisfaction and organizational commitment. These independent variables were regressed on the dependent variable

turnover intentions to assess the contribution each variable made to the construct of turnover intentions.

The next phase of statistical analysis utilized a series of univariate, two-way, and multivariate analysis of variance calculations to test the study hypotheses and to examine the effect of demographic and job related characteristics on job stress and turnover intentions, as well as how the variables might impact the job stress-turnover intentions relationship in differing ways. Follow-up post hoc analyses were conducted to determine where differences existed.

Summary

The purpose of this study was to examine job stress within the Tennessee Extension system and its relationship to turnover intentions of employees who work at different levels, job classifications, and job assignments within the extension organization. Two major components of job stress as identified by Spielberger and Vagg (1999), *job pressure* and *lack of organizational support*, were utilized to examine workplace stress. Relationships and differences among self-reported job stress scores, employees' intentions to leave their jobs within the next 12 months, demographic variables, job-related variables, job satisfaction, and organizational commitment data were examined.

Employees of the Tennessee Cooperative Extension System were the focus of this study and served as the sampling frame. A 50% stratified, proportionate sample of 231 professional and 180 support employees was randomly selected as study participants.

Self-reported data related to workplace stress were collected using the *Job Stress Survey* (*JSS*) (Spielberger & Vagg, 1999). A supplementary questionnaire was developed

by the researcher, which incorporated demographic and job-related questions, as well as the *Intent to Turnover Scale* (Cammann et al., 1983), the *Job Satisfaction Scale* (Cammann, et al.), and the *Organizational Commitment Questionnaire* (Mowday et al, 1979).

Descriptive and inferential statistical analyses were utilized to examine the data. Spearman rank correlations were used to determine if any relationships existed between individual stressors and turnover intentions of TCES employees, while Pearson *r* correlations, multiple regression, ANOVAs and MANOVAs were utilized to determine any relationships among scales, subscales, demographic variables, and job-related variables, as well as significant differences that existed between the employee groups of interest.

CHAPTER IV

FINDINGS AND RESULTS

The purpose of this study was to examine job stress as experienced by employees within the Tennessee Cooperative Extension System (TCES) and any relationships that existed between job stress and voluntary turnover intentions. Additional demographic and job-related variables identified in the literature as playing significant roles in influencing job stress and turnover intentions were also examined. *Job pressure* and *lack of organizational support*, the two major constructs of job stress as identified by Spielberger and Vagg (1999), were utilized to investigate the frequency and severity of job stress within TCES. The researcher also investigated whether or not significant differences existed among the demographic variables age, gender, ethnicity, and education level and job-related variables length of service with TCES, years of service in current position, job classification, level in organization, and job assignment, and if so, how they may have influenced job stress and turnover intentions. The attitudinal variables job satisfaction and organizational commitment also were examined to determine their relationship with the variables of interest in this study.

This chapter presents the study results in three sections: (a) descriptive statistics, (b) research questions, and (c) hypotheses. A summary of the findings concludes the chapter.

Descriptive Statistics

Descriptive statistics were calculated for demographic and job-related variables, as well as for responses to the questionnaires utilized to collect information on job stress, turnover intentions, job satisfaction, and organizational commitment as self-reported by

TCES employees. Means, frequencies, and percent values for each set of variables are summarized in this section.

Demographic Variables

Frequencies were obtained for all TCES employee demographic questionnaire responses. Table 1 presents the demographic variables, their frequency of response, percent values, and cumulative percentages.

Table 1 indicates that more than 32% of TCES employees were under the age of 41, while almost 36% were over the age of 50. More than 66% of the employees included in the sample were female. In further investigation of the two employee groups, it was revealed that 96% (127) of the support group were female, while only 4% (5) were male. The professional group consisted of 47% females (94), and 53% males (106).

While the sample included a somewhat diverse population, the greatest percentage of employees was White (88.6%). The second largest group was African American (9.3%).

The largest group of TCES employees had attained a master's degree (38.3%), with the fewest attaining an associate's degree as their highest level of education. High school diplomas were attained by 23.5%, while 8.7% reported acquiring a doctorate. Twenty-six respondents (7.8%) reported "other" levels of education, which included responses such as "one year of business school," "two years of college," and "two semesters at technical college." The diversity of responses and the relatively small number of responses in each of these education categories resulted in combining the data into the "other" category.

Table 1

Demographic Information of TCES Employees

Demographic Variables	Frequency	Valid Percent	Cumulative Percent
Gender			
Female	221	66.4	66.4
Male	111	33.6	100.0
Total	**332**	**100.0**	
Age			
Less than 30	33	10.0	10.0
31-40	74	22.4	32.4
41-50	106	32.0	64.4
51-60	99	29.9	94.3
Over 60	19	5.7	100.0
Total	**331**	**100.0**	
Ethnicity			
African American	31	9.3	9.3
Asian/Pacific Islander	2	.6	9.9
Hispanic	2	.6	10.5
Native American	1	.3	10.8
White	294	88.6	99.4
Other	2	.6	100.0
Total	**332**	**100.0**	
Education Level			
High School	78	23.5	23.5
Associate's Degree	10	3.0	26.5
Bachelor's Degree	62	18.7	45.2
Master's Degree	127	38.3	83.5
Doctorate	29	8.7	92.2
Other	26	7.8	
Total	**332**	**100.0**	

Due to the small number of responses falling in several of the demographic categories, data in three categories (age, ethnicity, and education) were collapsed for more effective and powerful statistical analysis.

Job-related Variables

Table 2 presents the job-related variables utilized in this study. A review of the data reveals that 60.4% of the respondents were classified as professional, while the remaining employees (39.6%) were in the support category.

Employees working five years or less made up 27.7% (92) of the study sample, while 32.2% (107) of the employees had worked with TCES more than 20 years. Twenty employees (6%) had been with TCES for 31 years or more.

Slightly more than 45% (150) of the employees had served in their current positions with TCES five years or less; 24.8% reported working in their current positions 16 or more years. The smallest employee group (3.3%) had worked 31 years or more in their current positions. These findings indicated that more than one-half of all employees who had worked 31 years or more had worked in the same position throughout their careers.

Table 2 also illustrates that the largest group of employees (64.1%) worked at the county level, while 22.8% were employed at the state level. The smallest group (13.1%) worked at the district or area level.

There are a variety of job assignments in TCES. For this study, TCES professional employees were categorized into one of four groups (Table 2): (a) county director, (b) county extension agent/one area of responsibility, (c) county extension agent/two or more areas of responsibility, and (d) district or state administrator or

Table 2

Job-related Information of TCES Employees

Job-related Variables	Frequency	Valid Percent	Cumulative Percent
Job Classification			
Professional	201	60.4	60.4
Support	132	39.6	100.0
Total	**333**	**100.0**	
Length of Service with TCES			
Less than one year	7	2.1	2.1
1-5 years	85	25.6	27.7
6-10 years	66	19.9	47.6
11-15 years	38	11.4	59.0
16-20 years	29	8.7	67.8
21-30 years	87	26.2	94.0
31 years or more	20	6.0	100.0
Total	**332**	**100.0**	
Length of Service in Current Position			
Less than one year	29	8.8	8.8
1-5 years	121	36.6	45.4
6-10 years	60	18.1	63.5
11-15 years	39	11.8	75.3
16-20 years	28	8.5	83.8
21-30 years	43	13.0	96.8
31 years or more	11	3.3	100.0
Total	**331**	**100.0**	
Level in Organization			
County	211	64.1	64.1
District or Area	43	13.1	77.2
State	75	22.8	100.0
Total	**329**	**100.0**	
Job Assignment (Professional)			
County Director	41	20.5	20.5
County Extension Agent/One Area of Assignment	62	31.0	51.5
County Extension Agent/Two or More Areas of Assignment	29	14.5	66.0
District/State Specialist or Administrator	68	34.0	100.0
Total	**200**	**100**	

specialist. The largest group (34%) held job assignments as district or state administrators, program leaders, or specialists, while the smallest group (14.5%) had job assignments as county extension agents with two or more areas of responsibility.

For more effective statistical analyses, responses in three of the job categories (length of service with TCES, length of service in current position, and job assignment) were collapsed.

Summary of Questionnaire Responses

Measures of job stress, turnover intentions, job satisfaction, and organizational commitment were utilized in this study to collect self-reported information from TCES employees. A summary of responses for each of the scales and subscales, including means and standard deviations, is included in this section. Reliability data for the instruments are also included.

Job Stress Survey

The *Job Stress Survey (JSS)* consists of 30 individual stressors that have shown to be significant contributors to work place stress (Spielberger & Vagg, 1999). Measures of the frequency and severity of each stressor were utilized to form scales and subscales that served as the foundation of the *JSS*. Mean scores and standard deviations for TCES employee responses are presented for the 30 individual stressors in Table 3.

A 9-point Likert scale was used in the *JSS* for the *severity* subscale, with possible responses ranging from 1 (least stressful) to 9 (most stressful) as compared with *assignment of disagreeable duties*, which served as a standard midpoint score of 5. Earlier research has validated this stressor as consistently receiving an average rating by workers in a variety of work settings and occupations (Grier, 1982; Spielberger,

Table 3

Mean Job Stress Index Scores of TCES Employees for Individual Stressors in JSS

Stressors	*n*	Mean Scores	*SD*
1. Assignment of disagreeable duties	317	13.36	13.773
2. Working overtime	331	29.93	23.430
3. Lack of opportunity for advancement	321	20.86	28.722
4. Assignment of new or unfamiliar duties	332	20.64	19.323
5. Fellow workers not doing their job	330	26.17	27.767
6. Inadequate support by supervisor	332	15.60	23.875
7. Dealing with crisis situations	331	19.85	21.133
8. Lack of recognition for good work	330	18.61	24.143
9. Performing tasks not in job description	331	23.70	21.711
10. Inadequate or poor quality equipment	332	23.40	25.286
11. Assignment of increased responsibility	330	24.31	22.945
12. Periods of inactivity	329	6.02	12.237
13. Difficulty getting along with supervisor	332	6.36	15.896
14. Experiencing negative attitudes toward organization	331	19.49	23.029
15. Insufficient personnel to handle an assignment	331	24.70	26.871
16. Making critical on-the-spot decisions	331	18.60	19.224
17. Personal insult from customer/consumer/colleague	332	8.24	14.543
18. Lack of participation in policy-making decisions	328	17.63	22.711
19. Inadequate salary	333	42.53	31.047
20. Competition for advancement	328	8.48	17.629
21. Poor or inadequate supervision	332	10.88	21.003
22. Noisy work area	332	16.03	22.784
23. Frequent interruptions	331	34.83	25.541
24. Frequent changes from boring to demanding activities	329	17.03	17.823
25. Excessive paperwork	332	44.12	26.598
26. Meeting deadlines	332	37.15	24.033
27. Insufficient personal time (e.g., coffee breaks, lunch)	331	15.87	23.463
28. Covering work for another employee	329	19.44	22.307
29. Poorly motivated coworkers	327	25.29	27.293
30. Conflicts with other departments	328	6.50	13.838

Westberry, Grier, & Greenfield, 1981; Spielberger & Vagg, 1999), including university settings. Frequency scores for that stressor were reported on a scale from 0 to 9 or more days, the number representing the actual number of days the stressor event was experienced during the preceding six months.

The 30 individual stressors in the *JSS* (Spielberger & Vagg, 1999) were combined into 9 scales and subscales: frequency, severity, and index scales for job stress, job pressure, and lack of organizational support. The index scores represent the product of the frequency and severity scores. Table 4 gives the mean scores and standard deviations for all *JSS* scales and subscales derived from TCES employee responses.

Normative data for the *JSS* were obtained over the years by the researchers administering the questionnaire to heterogeneous samples of 2,173 adults employed in business, industry, university, and military settings. Alpha coefficients for the 9 *JSS* scales and subscales have consistently been reported to range from .80 to .91 for managerial and professional employees, and from .82 to .93 for clerical and skilled-maintenance employees, providing sound evidence to support the internal consistency reliability for each of the scales and subscales (Spielberger & Vagg, 1999).

The mean *Job Stress Index* score for TCES employees was 20.445 (*SD* = 10.477) out of a possible maximum score of 79.8, indicating that professional (P) and support (S) employees in general experienced slightly more work-related stress than the norms (P = 20.19, S = 19.65) established by Spielberger and Vagg (1999) for managerial or professional and clerical or maintenance employees. The overall mean *Job Pressure Index* score was 25.324 (*SD* = 13.889) out of a possible maximum score of 81.0, indicating that TCES employees also experienced moderately higher levels of job

Table 4

Job Stress Survey Scale and Subscale Mean Responses

JSS Scales and Subscales	*n*	Mean Scores	*SD*
Job Stress Frequency	332	3.469	1.480
Job Stress Severity	333	4.972	1.172
Job Stress Index	332	20.445	10.477
Job Pressure Frequency	332	4.623	2.024
Job Pressure Severity	333	5.000	1.335
Job Pressure Index	332	25.324	13.889
Lack of Organizational Support Frequency	333	2.790	1.914
Lack of Organizational Support Severity	333	5.177	1.535
Lack of Organizational Support Index	332	18.348	14.360

pressure than employees included in the normative studies (P = 22.62, S = 21.18) conducted by Spielberger and Vagg.

The mean score for the *Lack of Organizational Support index* was 18.348 (*SD* = 14.360) of a possible maximum score of 81.0. These statistics were slightly lower than levels of lack of organizational support experienced by employees included in normative studies (P = 20.15, S = 19.52) conducted by Spielberger and Vagg (1999).

TCES employees appeared to experience levels of job stress severity that were similar to the norms (P = 4.92, S = 4.85) established by Spielberger and Vagg (1999), reporting an overall mean job stress severity score of 4.972 (*SD* = 1.172) of a maximum score of 8.87. The mean job pressure severity score was 5.00 (*SD* = 1.335) of a possible maximum score of 9.0, indicating that TCES employees perceived the severity of job pressure to be moderately higher than the norms (P = 4.52, S = 4.62) established by Spielberger and Vagg. A somewhat lower overall mean *lack of organizational support severity* score (5.177, *SD* = 1.535, of a maximum score of 9.0) than the norm (P = 5.49, S = 5.28) established by Spielberger and Vagg was noted also.

When job stress frequency mean scores were examined, TCES employees averaged a similar number of occurrences of job stress (3.469, *SD* = 1.480, of a possible maximum score of 9.0) as employees included in the norm (P = 3.69, S = 3.38) (Spielberger & Vagg, 1999). In addition, TCES employees reported an overall mean job pressure frequency score of 4.623 (*SD* = 2.024) of a possible maximum score of 9.0, indicating that TCES professional employees experienced slightly more occurrences of job pressure than the norm (4.57) while support employees reported moderately fewer occurrences than the norm (3.99) (Spielberger & Vagg). The overall mean lack of

organizational support frequency score (2.790, *SD* = 1.914, of a possible maximum score of 9.0) suggested TCES employees experienced moderately fewer occurrences of lack of organizational support than the norms (P = 3.23, S = 3.03) (Spielberger & Vagg).

Turnover Intentions Scale

The *Turnover Intentions* scale (Cammann et al., 1983) consisted of three positively worded items and utilized a 7-point Likert scale. Possible responses ranged from 1 (strongly disagree) to 7 (strongly agree). Mean turnover intentions scores were derived for each respondent based on these responses. Table 5 lists TCES employee mean scores and standard deviations for each item included in the *Intent to Turnover* scale as well as for the overall mean turnover intentions score. The mean was determined to be 2.366 (*SD* = 1.52) on a 7-point scale. This finding suggests that TCES employees had relatively low intentions of leaving the organization.

A reliability coefficient of 0.8643 was calculated for the *Intent to Turnover* scale using Cronbach's Alpha. This finding is a slightly higher reliability level than earlier research reported for this scale. In those studies reliability coefficients of .83 (Cammann et al., 1983), and .85 (Mollica & DeWitt, 2000) were noted.

Job Satisfaction Scale

The *Job Satisfaction* global measure utilized in this study (Cammann et al., 1983) consisted of a 3-item scale, incorporating two positively worded items and one negatively worded item. A 7-point Likert scale was used to record responses. Possible responses ranged from 1 (strongly disagree) to 7 (strongly agree). After transposing data for the negatively worded item, mean job satisfaction scores were derived for each respondent. Table 6 lists TCES employee mean job satisfaction scores and standard deviations for

Table 5

Mean Turnover Intention Scores for TCES Employees as Measured by the Intent to Turnover Scale

Items	*n*	Mean Scores	*SD*
I often think about quitting my job.	326	2.656	1.750
I will probably look for a new job during the next 12 months.	328	2.274	1.723
It is likely I will look for a new job during the next 12 months.	332	2.160	1.680
Total Scores	332	2.366	1.520

Table 6

Mean Job Satisfaction Scores for TCES Employees as Measured by the Job Satisfaction Scale

Items	*n*	Mean Scores	*SD*
All in all, I am satisfied with my job.	332	5.452	1.229
In general, I don't like my job. (reverse scored)	329	6.021	1.387
In general, I like working here.	328	5.652	1.252
Total Scores	332	5.709	1.100

each item included in the *Job Satisfaction* scale as well as for the overall mean job satisfaction score of 5.452 (SD = 1.10) on a 7-point scale. Data suggest that TCES employees had moderately high levels of job satisfaction.

A reliability coefficient of 0.8141 was calculated for the *Job Satisfaction* scale using Cronbach's Alpha. This finding also was slightly higher than that found in earlier research. The original authors of the *Job Satisfaction* scale found reliability coefficients of .77 (Cammann et al., 1983).

Organizational Commitment Scale

The *Organizational Commitment Scale* utilized in this study (Mowday et al., 1979) consisted of 9 positively worded items. A 7-point Likert scale was used to record responses. Possible responses ranged from 1 (strongly disagree) to 7 (strongly agree). Mean organizational commitment scores were derived for each respondent. Table 7 lists TCES employee mean organizational commitment scores and standard deviations for each item included in the scale as well as the overall mean organizational commitment score, which was determined to be 5.068 (SD = 1.020) on a 7-point scale, signifying that TCES employees expressed moderately high levels of commitment to the organization.

A reliability coefficient of 0.8203 was calculated for the *Organizational Commitment Questionnaire* using Cronbach's Alpha. This finding is in line with earlier research that utilized variations of this scale, where reliability coefficients of .82 to .90 (Moore, 1998; Mowday et al., 1979) were reported.

Research Questions

Eight research questions were constructed to guide this study in the investigation of relationships between the frequency and severity of the *job pressure* and *lack of*

Table 7

Mean Organizational Commitment Scores for TCES Employees as Measured by the Organizational Commitment Questionnaire

Items	*n*	Mean Scores	*SD*
I am willing to put a great deal of effort beyond that normally expected in order to help this organization succeed.	332	5.774	1.129
I talk up this organization as a great organization to work for.	331	5.103	1.425
I would accept almost any type of job assignment in order to keep working for this organization.	331	3.414	1.657
I find that my values and the organization's values are very similar.	332	4.753	1.388
I am proud to tell others I am a part of this organization.	332	5.663	1.237
This organization really inspires the very best in the way of job performance.	332	4.714	1.576
I am extremely glad I chose this organization to work for over others I was considering at the time I joined.	331	5.317	1.370
I really care about the fate of this organization.	332	6.102	1.061
For me, this is the best of all possible organizations for which to work.	332	4.780	1.504
Total Scores	332	5.068	1.020

organizational support dimensions of job stress as defined by Spielberger and Vagg (1999) and turnover intentions of TCES employees. Due to the historical intervening role (Bedeian & Armenikas, 1981; Elangovan, 2001; Moore, 1998) in previous research of the attitudinal variables job satisfaction and organizational commitment in the job stress-turnover intentions relationship, these variables also were examined to clarify the nature of the role they play. This section utilizes a series of statistical analyses to respond to each of the eight questions.

Research Question One

Is there a relationship between job stress or its two dimensions, job pressure and lack of organizational support, and turnover intentions of TCES employees?

The first research question attempted to identify if significant relationships existed between *job stress index* (the product of job stress severity and frequency scores), *job pressure index* (the product of job pressure severity and frequency scores), or *lack of organizational support index* (the product of lack of organizational support severity and frequency scores) scores and turnover intentions scores of TCES employees. Statistical analyses revealed significant relationships between turnover intentions and job stress index scores, as well as its two dimensions, job pressure index and lack of organizational support index. A scatter plot of job stress index scores and turnover intentions scores of TCES employees is presented in Figure 4, illustrating the distribution of individual scores, as well as the overall relationship between the two variables.

To determine the strength of existing relationships, Pearson *r* correlations were run for the variables of interest. Table 8 presents the results, revealing positive

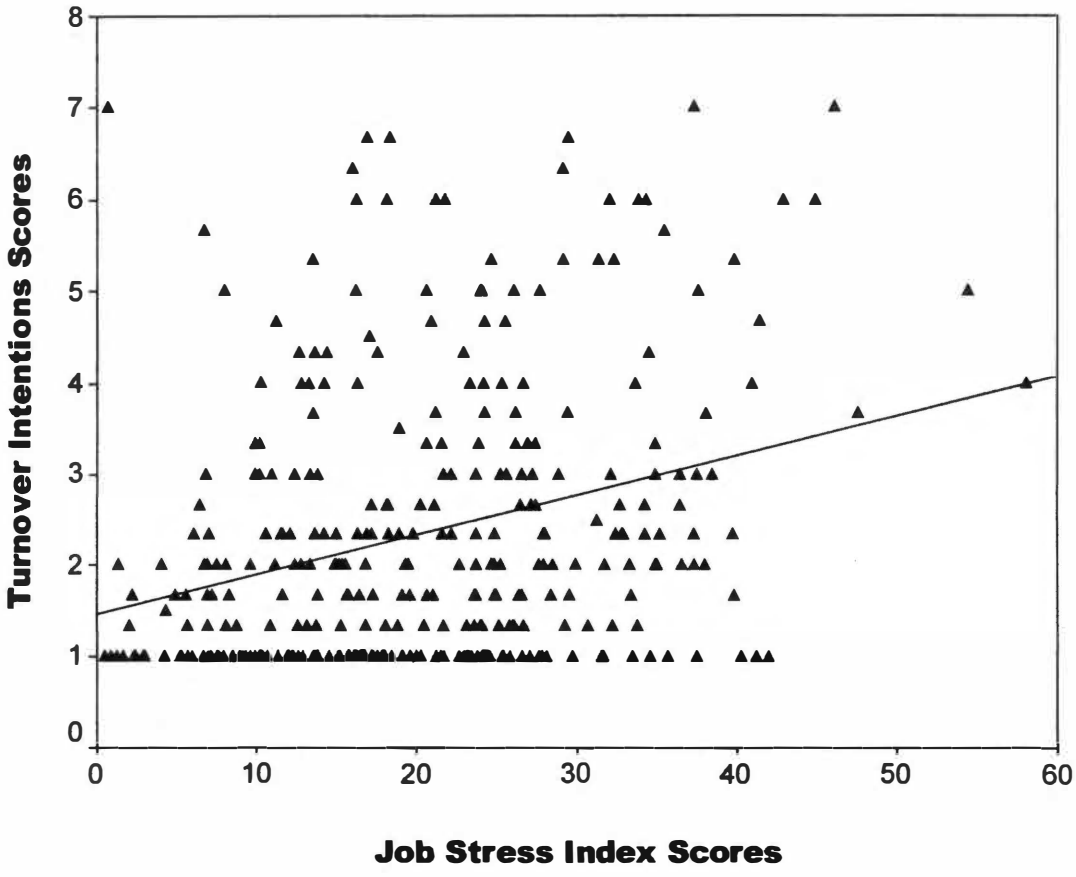

Figure 4. **Scatter plot of job stress index and turnover intentions scores for TCES employees.**

Table 8

Pearson r Correlations for Job Stress Scores and Turnover Intentions Scores of TCES Employees

Variables	Turnover Intentions
Job Stress Index	0.302**
Job Pressure Index	0.136*
Lack of Organizational Support Index	0.341**

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

significant relationships between turnover intentions and *job stress index* (r =.302, p < .01), *job pressure index* (r = .136, p < .050, and *lack of organizational support index* (r = .341, p < .01). Data indicated that as job stress scores increased, turnover intentions scores increased.

To further examine the relationship between the dimensions of job stress and turnover intentions, two regression analyses were run to help explain the variance that each job stress dimension contributed to turnover intentions. Because the *job stress index* scores were comprised of the *job pressure index* scores and *lack of organizational support index* scores, these dimensions were highly correlated with the *job stress index* (*job pressure index--r* =.786, *lack of organizational support index--r* = *.826*). This resulted in a multicollinearity effect. Therefore, a separate linear regression was run for the *job stress index*. Table 9 presents the results of the total job stress analysis, indicating that the job stress index scores explained slightly more than 9% (R-Square = .091) of the variance in the turnover intentions construct. The results of the simultaneous multiple regression analysis for *job pressure index* and *lack of organizational support index* on turnover intentions are reported in Table 10. When these two dimensions were treated as separate constructs and entered simultaneously into the regression model, slightly more than 11% of the variance in turnover intentions was explained (R-Square = .111). However, only the *lack of organizational support index* was found to be a significant contributor (p < .001).

Research Question Two

Is the frequency that job stress, job pressure, and lack of organizational support occur in the workplace related to turnover intentions of TCES employees?

Table 9

Linear Regression Analysis of Job Stress Index on Turnover Intentions

	Unstandardized Coefficients		Standardized Coefficients		
Variable	***B***	**Std. Error**	**Beta**	***t***	**Sig.**
(Constant)	1.467	.174		8.416	.000
Job Stress Index	.044	.008	.302	5.744	.001

$F(1,329) = 32.995$, $p < .002$, R-Square = .091

Table 10

Simultaneous Multiple Regression Analysis of Job Stress Subscales on Turnover Intentions

	Unstandardized Coefficients		Standardized Coefficients		
Variables	***B***	**Std. Error**	**Beta**	***t***	**Sig.**
(Constant)	1.710	.171		10.014	.000
Job Pressure Index	.001	.006	.005	.084	.933
Lack of Organizational Support Index	.035	.006	.331	5.812	.001

$F(2, 327) = 20.344$, $p<.002$, R-Square = .111

This research question examined the extent that the frequency of occurrence of dimensions of overall job stress, including job pressure and lack of organizational support, was related to turnover intentions. Pearson *r* correlation coefficients for the variables of interest are presented in Table 11, revealing significant positive relationships between overall job stress frequency and turnover intentions ($r = .261, p < .01$), as well as between lack of organizational support frequency and turnover intentions ($r = .311, p < .01$). However, the frequency of job pressure was not significantly related to turnover intentions of TCES employees.

Two regression analyses were conducted to determine whether or not the frequency that job stress occurs explains any of the variance in turnover intentions. The first analysis regressed total job stress frequency on turnover intentions using linear regression. The results, shown in Table 12, indicate the variable made a statistically significant contribution to turnover intentions but explained only 6.8% of its variance. A simultaneous multiple regression analysis was utilized to examine job pressure frequency and lack of organizational support frequency (Table 13). Only lack of organizational support frequency played a significant role in the turnover intentions process, with the model explaining 9.3% of its variance.

Research Question Three

Is the severity of overall job stress, job pressure, and lack of organizational support related to turnover intentions of TCES employees?

The severity of overall job stress and its two dimensions were investigated by the third research question to determine if significant relationships existed with turnover intentions of TCES employees. Pearson *r* correlations for turnover intentions, job stress

Table 11

Pearson r Correlations for Job Stress Frequency Scores and Turnover Intentions Scores of TCES Employees

Variables	Turnover Intentions
Job Stress Frequency	.261**
Job Pressure Frequency	.106
Lack of Organizational Support Frequency	.311**

** Correlation is significant at the 0.01 level (2-tailed).

Table 12

Linear Regression Analysis of Job Stress Frequency on Turnover Intentions

	Unstandardized Coefficients		Standardized Coefficients		
Variable	***B***	**Std. Error**	**Beta**	***t***	**Sig.**
(Constant)	1.434	.205		6.992	.000
Job Stress Frequency	.266	.054	.261	4.898	.001

$F(1,329) = 23.991$, $p < .002$, R-Square = .068

Table 13

Simultaneous Multiple Regression Analysis of Job Pressure and Lack of Organizational Support Frequency on Turnover Intentions

	Unstandardized Coefficients		Standardized Coefficients		
Variables	***B***	**Std. Error**	**Beta**	***t***	**Sig.**
(Constant)	1.777	.203		8.774	.000
Job Pressure Frequency	-.026	.044	-.035	-.595	.553
Lack of Organizational Support Frequency	.253	.047	.318	5.426	.001

$F(2,328) = 16.759, p < .002$, R-Square = .093

severity, job pressure severity, and lack of organizational support severity were calculated; results are presented in Table 14. The calculations indicate there were significant positive correlations between turnover intentions and job stress severity (r = .157, $p < .01$), as well as for lack of organizational support severity (r = .205, $p < .01$). No significant correlations were found between turnover intentions and job pressure severity.

Two regression analyses were utilized to examine the job stress severity dimensions and determine whether or not they made significant contributions to the turnover intentions construct. A linear regression analysis regressed job stress severity on turnover intentions (Table 15), indicating that job stress severity did contribute a statistically significant amount to the variance of turnover intentions (R-Square = .025, $p < .005$). However, this result explains only 2.5% of the total variance.

The second analysis utilized simultaneous multiple regression to regress job pressure severity and lack of organizational support severity on turnover intentions; results are presented in Table16. Findings indicated that lack of support severity explains a significant amount (4.5%) of turnover intentions' variance (R-Square = .045, $p < .001$), while job pressure severity was not found to be significant.

Research Question Four

Is there a relationship between individual stressors and turnover intentions of TCES employees?

In research question four relationships between the 30 individual stressors and turnover intentions of TCES employees were explored. Descriptive statistics revealed that when considered separately, responses for the 30 individual stressors were not normally distributed. Therefore, a non-parametric approach using Spearman rank

Table 14

Pearson r Correlations for Job Stress Severity Scores and Turnover Intention Scores of TCES Employees

Variables	Turnover Intentions
Job Stress Severity	.157**
Job Pressure Severity	.062
Lack of Organizational Support Severity	.205**

** Correlation is significant at the 0.01 level.

Table 15

Linear Regression Analysis of Job Stress Severity on Turnover Intentions

	Unstandardized Coefficients		Standardized Coefficients		
Variables	***B***	**Std. Error**	**Beta**	***t***	***Sig.***
(Constant)	1.353	.359		3.765	.000
Job Stress Severity	.204	.070	.157	2.896	.004

$F(1,330) = 8.387, p < .005$, R-Square = .025

Table 16

Simultaneous Multiple Regression Analysis of Job Pressure Severity and Lack of Organizational Support Severity on Turnover Intentions

	Unstandardized Coefficients		Standardized Coefficients		
Variables	***B***	**Std. Error**	**Beta**	***t***	**Sig.**
(Constant)	1.499	.345		4.343	.000
Job Pressure Severity	-.068	.072	-.060	-.955	.340
Lack of Organizational Support Severity	.234	.062	.236	3.748	.001

$F(2,329) = 7.692$, $p < .002$, R-Square = .045

correlations was utilized to calculate correlation coefficients for individual stressors and turnover intentions. The correlation matrix is presented in Table 17. Significant positive correlations were found between 22 of the 30 individual stressors and turnover intentions of TCES employees. Table 18 presents a summary of mean scores for the individual stressors in descending order. Stressors that were significantly correlated with turnover intentions are indicated, revealing that 10 of the stressors within the 15 highest mean scores were significantly related to turnover intentions. A summary of the stressors highly correlated with turnover intentions is provided in Table 19.

To further explore the contribution of individual stressors to the turnover intentions construct, 15 individual stressors found to be significantly correlated with turnover intentions were entered simultaneously into a regression model, and regressed on the dependent variable, turnover intentions. The results, presented in Table 20, indicated that only two stressors, *experiencing negative attitudes toward the organization* ($p < .001$) and *inadequate salary* ($p < .03$), accounted for statistically significant amounts of the variance in turnover intentions, $F(15,283) = 4.441$, $p < .001$, R-Square = .191. The full model accounted for 19.1% of the variance in turnover intentions.

Research Question Five

What role does the attitudinal variable job satisfaction play in the job stress and turnover intentions relationship among TCES employees?

To determine if job satisfaction played a significant role in the job stress and turnover relationship, Pearson *r* correlations were computed for all scales and subscales of job stress, job satisfaction, and turnover intentions. Table 21 presents the correlation matrix, which indicates significant negative correlations ($p < .01, .05$) with all job stress

Table 17

Spearman Rank Correlations for Individual Stressors and Turnover Intentions of TCES Employees

	Turnover Intentions		
Individual Stressors	**Correlation Coefficient**	**Sig. (2-tailed)**	***n***
1. Assignment of disagreeable duties	.176**	.002	316
2. Working overtime	.154**	.005	330
3. Lack of opportunity for advancement	.279**	.001	320
4. Assignment of new or unfamiliar duties	.029	.598	331
5. Fellow workers not doing their job	.168**	.002	329
6. Inadequate support by supervisor	.168**	.002	331
7. Dealing with crisis situations	.093	.092	330
8. Lack of recognition for good work	.193**	.001	329
9. Performing tasks not in job description	.252**	.001	330
10. Inadequate or poor quality equipment	.123*	.025	331
11. Assignment of increased responsibility	.165**	.003	329
12. Periods of inactivity	.116*	.036	328
13. Difficulty getting along with supervisor	.149**	.006	331
14. Experiencing negative attitudes toward organization	.326**	.001	330
15. Insufficient personnel to handle an assignment	.152**	.006	330
16. Making critical on-the-spot decisions	.126*	.022	330
17. Personal insult from customer/consumer/colleague	.134*	.015	331
18. Lack of participation in policy-making decisions	.144**	.009	327
19. Inadequate salary	.277**	.001	332
20. Competition for advancement	.172**	.002	327
21. Poor or inadequate supervision	.159**	.004	331
22. Noisy work area	.029	.597	331
23. Frequent interruptions	.062	.259	330
24. Frequent changes from boring to demanding activities	.049	.375	328
25. Excessive paperwork	.047	.390	331
26. Meeting deadlines	.062	.260	331
27. Insufficient personal time (e.g., coffee breaks, lunch)	.112*	.043	330
28. Covering work for another employee	.074	.182	328
29. Poorly motivated coworkers	.167**	.003	326
30. Conflicts with other departments	.168**	.002	327

** Correlation is significant at the .01 level (2-tailed).
* Correlation is significant at the .05 level (2-tailed).

Table 18

Ranked Mean Job Stress Index Scores of TCES Employees for JSS Stressors

Individual Stressors	*n*	Mean Scores	*SD*
Excessive paperwork	332	44.123	26.598
Inadequate salary**	333	42.529	31.047
Meeting deadlines	332	37.151	24.033
Frequent interruptions	331	34.834	25.541
Working overtime**	331	29.927	23.430
Fellow workers not doing their job**	330	26.173	27.767
Poorly motivated coworkers**	327	25.294	27.293
Insufficient personnel to handle an assignment**	331	24.701	26.871
Assignment of increased responsibility**	330	24.306	22.945
Performing tasks not in job description**	331	23.698	21.711
Inadequate or poor quality equipment*	332	23.398	25.286
Lack of opportunity for advancement**	321	20.863	28.722
Assignment of new or unfamiliar duties	332	20.645	19.323
Dealing with crisis situations	331	19.846	21.133
Experiencing negative attitudes toward organization**	331	19.486	23.029
Covering work for another employee	329	19.441	22.307
Lack of recognition for good work**	330	18.606	24.143
Making critical on-the-spot decisions*	331	18.598	19.224
Lack of participation in policy-making decisions	328	17.628	22.711
Frequent changes from boring to demanding	329	17.027	17.823
Noisy work area	332	16.027	22.784
Insufficient personal time (e.g., coffee breaks, lunch)*	331	15.870	23.463
Inadequate support by supervisor**	332	15.602	23.875
Assignment of disagreeable duties**	317	13.360	13.773
Poor or inadequate supervision**	332	10.880	21.003
Competition for advancement**	328	8.476	17.629
Personal insult from customer/consumer/colleague*	332	8.241	14.543
Conflicts with other departments**	328	6.500	13.838
Difficulty getting along with others**	332	6.358	15.896
Periods of inactivity*	329	6.015	12.237

** Significant correlation with turnover intentions at 0.01 level (2-tailed)
* Significant correlation with turnover intentions at 0.05 level (2-tailed)

Table 19

Selected Individual Stressors Significantly Correlated[a] with Turnover Intentions as Measured by the JSS and by the Intent to Turnover Scale

Individual Stressors	Turnover Intentions
Working overtime	.154**
Lack of opportunity for advancement	.279**
Fellow workers not doing their job	.168**
Inadequate support by supervisor	.168**
Lack of recognition for good work	.193**
Performing tasks not in job description	.252**
Assignment of increased responsibility	.165**
Difficulty getting along with supervisor	.149**
Experiencing negative attitudes toward organization	.326**
Insufficient personnel to handle an assignment	.152**
Inadequate salary	.277**
Competition for advancement	.172**
Poor or inadequate supervision	.159**
Poorly motivated coworkers	.167**
Conflicts with other departments	.168**

[a] Spearman rank correlations (Table 17).
** Correlation is significant at the .01 level (2-tailed).

Table 20

Simultaneous Multiple Regression Analysis of Selected Individual Stressors From the JSS on Turnover Intentions of TCES Employees

	Unstandardized Coefficients		Standardized Coefficients		
Individual Stressors	***B***	**Std. Error**	**Beta**	***t***	**Sig.**
(Constant)	1.433	.178		8.053	.000
Working overtime	.001	.004	.018	.294	.769
Lack of opportunity for advancement	.006	.003	.105	1.610	.108
Fellow workers not doing their job	.007	.004	.123	1.584	.114
Inadequate support by supervisor	-.006	.007	-.094	-.860	.390
Lack of recognition for good work	.002	.005	.025	.327	.744
Performing tasks not in job description	.001	.005	.008	.120	.905
Assignment of increased responsibility	.002	.004	.026	.381	.704
Difficulty getting along with supervisor	.002	.007	.022	.294	.769
Experiencing negative attitudes toward organization	.018	.004	.272	4.280	.001
Insufficient personnel to handle assignments	-.003	.004	-.053	-.789	.431
Inadequate salary	.007	.003	.139	2.230	.027
Competition for advancement	.008	.005	.097	1.527	.128
Poor or inadequate supervision	.002	.007	.032	.319	.750
Poorly motivated coworkers	-.003	.005	-.056	-.688	.492
Conflicts with other departments	.002	.007	.022	.355	.723

$F(15, 283) = 4.441, p < .001$, R-Square = .191

Table 21

Pearson r Correlations for Job Satisfaction, Job Stress, and for Turnover Intentions of TCES Employees

Variables	Job Satisfaction
Turnover Intentions	-.531**
Job Stress Index	-.364**
Job Pressure Index	-.192**
Lack of Organizational Support Index	-.428**
Job Stress Severity	-.146**
Job Pressure Severity	-.093
Lack of Organizational Support Severity	-.189**
Job Stress Frequency	-.313**
Job Pressure Frequency	-.134*
Lack of Organizational Support Frequency	-.408**

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

scales and subscales except job pressure severity. These scores indicated that as job stress scores increased, job satisfaction scores decreased. A significant negative relationship ($r = -.531, p < .01$) also was noted between job satisfaction and turnover intentions, signifying that as job satisfaction scores increased, turnover intentions scores decreased. Figure 5 illustrates the negative relationship between job satisfaction and turnover intentions.

To further explore the contribution job satisfaction made to the job stress-turnover relationship, a series of regression analyses were computed. The first was a multiple regression, in which job stress index scores and job satisfaction scores were simultaneously entered into the model and regressed on turnover intentions; results of this analysis are outlined in Table 22. The table indicates that job stress and job satisfaction both played significant roles in the turnover intentions construct, resulting in this model explaining slightly more than 29% of the variance in turnover intentions (R-Square = .291, $p < .012$). A second multiple regression analysis (Table 23) was run for job satisfaction, job pressure index, and lack of organizational support index scores, since the product of these job stress variables make up job stress index scores and cannot be run simultaneously due to multicollinearity effects. When the results of this analysis were examined, it revealed that only job satisfaction and lack of organizational support index scores were significant. Job pressure did not make a significant contribution to the model. As a result, the variance explained by this model was 29.2%, only slightly more than that found in the first analysis. These analyses indicate that job satisfaction played an important role in the job stress-turnover intentions relationship.

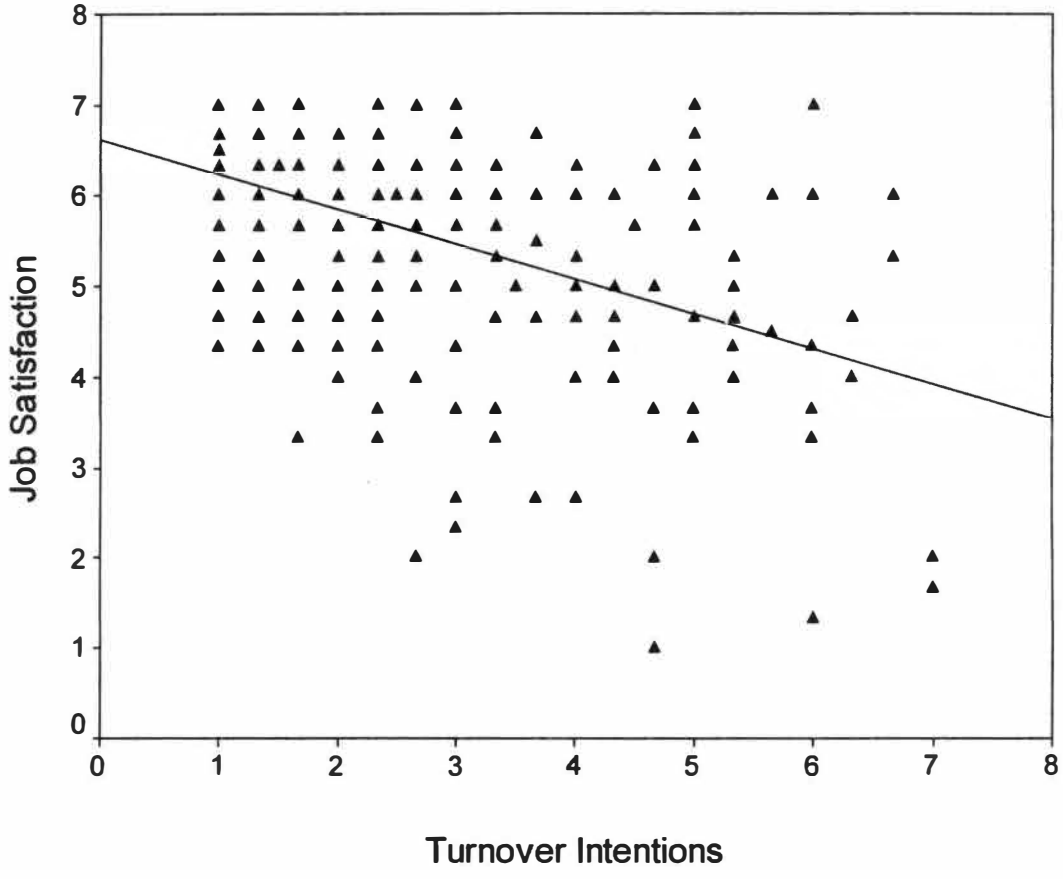

Figure 5. **Scatter plot of job satisfaction and turnover intention scores of TCES employees.**

Table 22

Simultaneous Multiple Regression Analysis of Job Satisfaction and Job Stress Index on Turnover Intentions of TCES Employees

	Unstandardized Coefficients		Standardized Coefficients		
Variables	***B***	**Std. Error**	**Beta**	***t***	**Sig.**
(Constant)	5.781	.475		12.181	.000
Job Stress Index	.018	.007	.127	2.552	.011
Job Satisfaction	-.665	.069	-.480	-9.611	.001

$F(2, 328) = 67.265, p < .012$, R-Square = .291

Table 23

Simultaneous Multiple Regression Analysis of Job Satisfaction, Job Pressure Index, and Lack of Organizational Support Index on Turnover Intentions of TCES Employees

	Unstandardized Coefficients		Standardized Coefficients		
Variables	***B***	**Std. Error**	**Beta**	***t***	**Sig.**
(Constant)	5.829	.476		12.251	.000
Job Satisfaction	-.649	.071	-.469	-9.140	.001
Job Pressure Index	-.001	.006	-.009	-.176	.860
Lack of Organizational Support Index	.015	.006	.139	2.537	.012

$F(3,326) = 44.835, p < .02$, R-Square = .292

Research Question Six

What role does the attitudinal variable organizational commitment play in the job stress- turnover intentions relationship among TCES employees?

In research question six, the relationships among organizational commitment, job stress, and turnover intentions of TCES employees were examined. Table 24 shows Pearson *r* correlation coefficients for organizational commitment, turnover intentions, and all job stress scales and subscales. The analysis disclosed a significant negative relationship for organizational commitment with turnover intentions, as well as with all scales and subscales of job stress except the job pressure frequency and severity subscales, where no significant relationships were noted. These findings indicate that TCES employee organizational commitment scores decreased as job stress and turnover intentions scores increased.

Multiple regression was utilized to further examine the relationships among organizational commitment, job stress, and turnover intentions. Using a simultaneous entry method, job stress index and organizational commitment scores were regressed on turnover intentions. Table 25 presents the regression model and statistics, indicating that job stress and organizational commitment were significant components of the turnover intentions construct. In this model, 27.8% ($R^2 = .278, p < .001$) of the variance in turnover intentions was explained by job stress and organizational commitment.

The second regression model simultaneously entered organizational commitment, job pressure, and lack of organizational support, and was regressed on turnover intentions. The results, shown in Table 26, indicated that only organizational commitment and lack of organizational support made significant contributions to the model; job

Table 24

Pearson r Correlations for Organizational Commitment, Turnover Intentions, and Job Stress Scales and Subscales

Variables	Organizational Commitment
Job Stress Index	-.294**
Job Pressure Index	-.118*
Lack of Organizational Support Index	-.376**
Job Stress Severity	-.173**
Job Pressure Severity	-.094
Lack of Organizational Support Severity	-.228**
Job Stress Frequency	-.259**
Job Pressure Frequency	-.090
Lack of Support Frequency	-.356**
Turnover Intentions	-.505**

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 25

Simultaneous Multiple Regression Analysis of Organizational Commitment and of Job Stress Index on Turnover Intentions of TCES Employees

	Unstandardized Coefficients		Standardized Coefficients		
Variables	***B***	**Std. Error**	**Beta**	***t***	**Sig.**
(Constant)	4.980	.424		11.742	.000
Job Stress Index	.027	.007	.187	3.825	.001
Organizational Commitment	-.624	.070	-.436	-8.912	.001

$F(2,328) = 60.145$, $p < .002$, R-Square = .268

Table 26

Simultaneous Multiple Regression Analysis of Organizational Commitment and of Job Stress Dimensions on Turnover Intentions of TCES Employees

	Unstandardized Coefficients		Standardized Coefficients		
Variables	***B***	**Std. Error**	**Beta**	***t***	**Sig.**
(Constant)	5.029	.425		11.830	.000
Organizational Commitment	-.607	.072	-.425	-8.386	.001
Job Pressure Index	.004	.006	.033	.637	.524
Lack of Organizational Support Index	.018	.006	.171	3.109	.002

$F(3,326) = 39.879$, $p < .05$, R-Square = .268

pressure was not a significant contributor. This model resulted in explaining 27.9% of the variance in turnover intentions.

Research Question Seven

Is there a relationship between the attitudinal variables job satisfaction and organizational commitment? If so, how does this relationship influence the job stress-turnover intentions relationship?

This research question sought to determine if there was a relationship between job satisfaction and organizational commitment, then examined how that association influenced the job stress-turnover relationship. Pearson *r* correlations were utilized to determine that the two variables of interest were significantly and positively correlated. (r = .594). To examine the relationship further, simultaneous multiple regression analysis was computed with job satisfaction, organizational commitment, and job stress index scores serving as the independent variables, while turnover intentions served as the dependent variable (Table 27). The analysis indicated that all three variables made significant contributions to the model, which explained a total of 33.7% of the variance in turnover intentions. When an ANOVA was calculated, no significant interactions were found among any of the variables. These analyses illustrated that when job satisfaction and organizational commitment were entered separately into the model, each accounted for less of the variance in turnover intentions than when the two variables were entered together. A second multiple regression analysis was computed using job pressure and lack of organizational support scores in lieu of job stress index scores, but the resulting model contributed even less to the variance of turnover intentions than the previous analysis utilizing the job stress index measure.

Table 27

Simultaneous Multiple Regression Analysis of Attitudinal Variables and of Job Stress Index on Turnover Intentions of TCES Employees

	Unstandardized Coefficients		Standardized Coefficients		
Variables	***B***	**Std. Error**	**Beta**	***t***	**Sig.**
(Constant)	6.541	.489		13.386	.000
Organizational Commitment	-.372	.080	-.260	-4.641	.001
Job Satisfaction	-.459	.080	-.331	-5.711	.001
Job Stress Index	.016	.007	.113	2.330	.020

$F(3, 327) = 54.831, p < .05$, R-Square = .335

Research Question Eight

What combination of variables examined in this study explains the greatest percentage of variance in the turnover intentions construct?

This research question sought to explore the contributions made to the total variance of turnover intentions and determine what combination of variables explained the greatest percentage of that variance. A stepwise multiple regression analysis was utilized to perform the computation, with turnover intentions serving as the dependent variable. Demographic variables, job-related variables, and scores from job stress subscales were entered as independent variables, as were scores for the attitudinal variables job satisfaction and organizational commitment. A model that included the variables lack of organizational support, job satisfaction, organizational commitment, gender, and length of service with TCES was determined to make a significant contribution to the turnover construct, and explained the greatest amount of variance. This model (Table 28) accounted for 39.5% of the variance in turnover intentions.

Hypotheses

Four null hypotheses were designed to investigate any differences that existed between TCES employee job stress and turnover intentions scores, and to determine if the scores were influenced by demographic or job-related variables. This section presents the results for each hypothesis based on statistical analysis.

Null Hypothesis One

There are no differences among job stress scores as measured by the JSS for TCES employees when compared by the demographic characteristics of age, ethnicity, gender, and educational level.

Table 28

Stepwise Multiple Regression Analysis of Selected Independent Variables on Turnover Intentions of TCES Employees

	Unstandardized Coefficients		Standardized Coefficients		
Variables	***B***	**Std. Error**	**Beta**	***t***	**Sig.**
(Constant)	7.186	.527		13.624	.000
Job Satisfaction	-.466	.079	-.338	-5.876	.001
Organizational Commitment	-.396	.084	-.266	-4.725	.001
Tenure with TCES	-.286	.055	-.226	-5.171	.001
Lack of Organizational Support Index	.011	.005	.103	2.136	.033
Gender	.289	.142	.090	2.037	.042

$F(5,325) = 42.42$, $p < .05$, R-Square = .395

When the job stress subscale scores for *job pressure* and for *lack of organizational support* were examined to determine whether or not differences existed for age, ethnicity, gender, or education levels, significant differences were found only among education levels, $F(4,600) = 3.754$, $p = .005$. Therefore, H_O1 was rejected. Wilks' Lambda values and supporting statistics for all demographic variables are presented in Table 29.

To further examine the between-subjects effects of education on job pressure and lack of organizational support scores, an additional analysis of variance was conducted. Results from this analysis are outlined in Table 30, and indicate that significant differences in both job pressure ($p = .001$) and lack of organizational support ($p = .041$) scores were found among education levels. To examine whether or not similar results would be obtained if the job stress index scores were examined, rather than using the two dimensions of job stress, a univariate analysis of variance was calculated. That calculation also revealed a significant difference, $F(2,302) = 7.742$, $p = .001$.

Figure 6 summarizes mean job pressure and lack of organizational support scores by education level. The graph indicates that scores increased as education levels increased for both the job pressure and lack of organizational support dimensions of job stress. The graph also reveals that lack of organizational support scores were lower than were job pressure scores for employees at all education levels.

Post hoc analysis was conducted using Tukey's HSD to determine which groups were significantly different. The analysis, reported in Table 31, indicated significant differences ($p < .05$) only between employees with high school educations and those with

Table 29

Multivariate Analyses of Job Pressure and Lack of Organizational Support Index Scores by Demographic Variables

Effect	Wilks' Lambda Value	F^a	*df*	Error	Sig.
Age	.993	.585	4	650	.673
Gender	.991	1.535	2	327	.217
Ethnicity	.990	1.585	2	327	.206
Education	.952	3.754	4	600	.005

[a] Exact Statistic

Table 30

Analysis of Variance for Job Pressure and Lack of Organizational Support Index Scores by Education Level

Source	Dependent Variable	Type III SS	*df*	Mean Square	*F*	Sig.
Education	Job Pressure Index	2433.673	2	1216.837	6.833	.041
	Lack of Organizational Support Index	1295.841	2	647.921	3.221	.041

$p < .05$

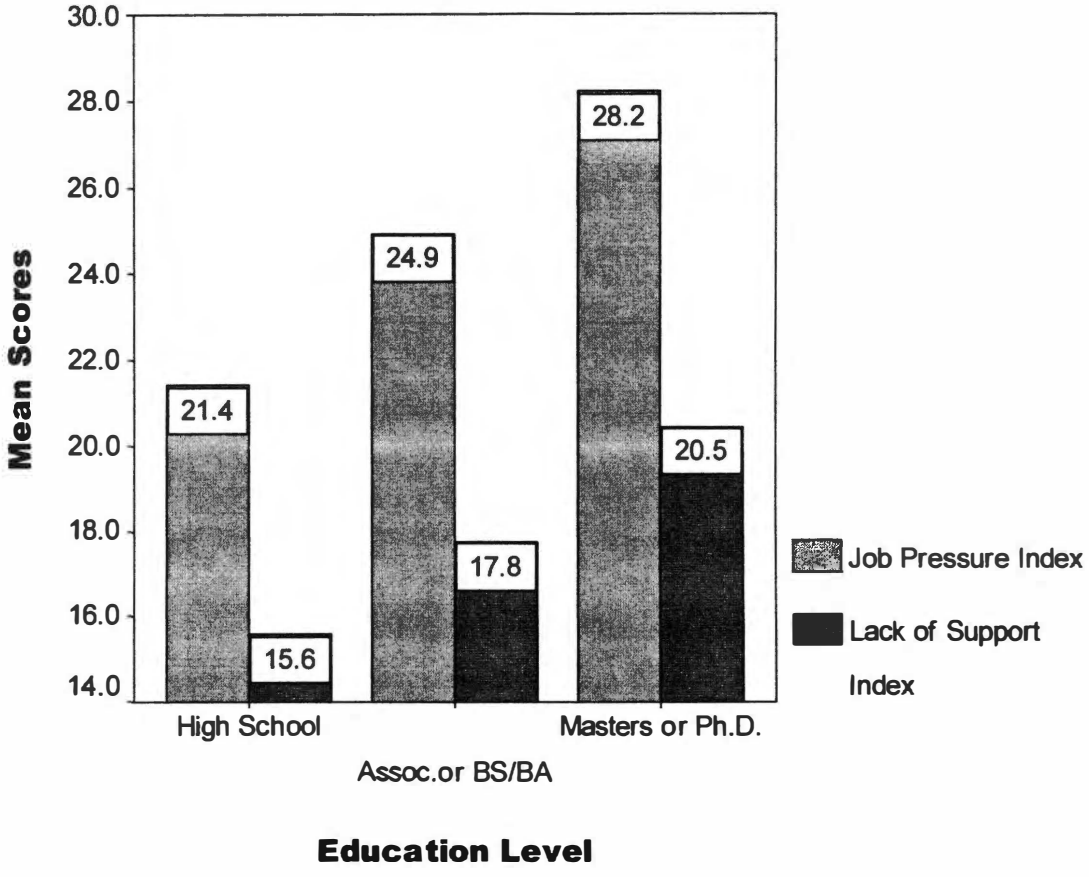

Figure 6. **Mean job pressure and lack of organizational support index scores for TCES employees by education level.**

Table 31

Tukey's HSD Post Hoc Analysis of Job Pressure and Lack of Organizational Support Index Scores by Education Level

Dependent Variable	Education Level	Education Level	Mean Difference	Std. Error	Sig.
Job Pressure Index	High School	Associate's or BS/BA	-3.501	2.2000	.250
		Master's or Ph.D.	-6.786*	1.8600	.001
	Associate's or BS/BA	High School	3.501	2.1960	.250
		Master's or Ph.D.	-3.286	1.9100	.199
	Master's or Ph.D.	High School	6.787*	1.8590	.001
		Associate's or BS/BA	-3.501	1.9100	.199
Lack of Organizational Support Index	High School	Associate's or BS/BA	-6.786*	2.3340	.619
		Master's or Ph.D.	3.501	1.9750	.037
	Associate's or BS/BA	High School	-3.286	2.3340	.619
		Master's or Ph.D.	6.787*	2.0310	.378
	Master's or Ph.D.	High School	3.286	1.9750	.037
		Associate's or BS/BA	-2.180	2.0310	.378

* The mean difference is significant at the 0.05 level

master's or Ph.D. degrees for both the job pressure and lack of organizational support dimensions of job stress.

The second phase of analysis for this hypothesis focused on frequency and severity scores for the job pressure and lack of organizational support constructs. Multivariate analyses were used to determine whether or not job pressure frequency or lack of organizational support frequency scores were significantly influenced by the demographic variables. The resulting Wilks' Lambda values, presented in Table 32, indicated significant findings for gender, ethnicity, and education.

The significant findings were investigated further using ANOVAs to examine between-subject effects. Gender exhibited a significant main effect on job pressure frequency scores (p=.014); results are presented in Table 33. However, no significant gender effects were noted for the lack of organizational support dimension of job stress. Figure 7 presents mean frequency scores by gender, indicating that males reported higher mean frequency scores than females for the job pressure dimension as well as the lack of organizational support dimension.

When an ANOVA was used to examine ethnicity, significant differences (p=.005) were found to exist between minority and non-minority groups for job pressure frequency (Table 34). The analysis revealed no significant ethnicity effects for lack of organizational support frequency scores. Figure 8 illustrates the mean frequency scores by ethnicity, indicating that while significant differences were noted only for job pressure frequency, scores were higher for non-minority employees in both dimensions of job stress.

Table 32

Multivariate Analyses of Job Pressure Frequency and Lack of Organizational Support Frequency Scores by Demographic Variables

Effect	Wilk's Lambda Value	F^a	*df*	Error	Sig.
Gender	.982	3.062	2	328	.048
Age	.995	.374	4	652	.829
Ethnicity	.976	4.075	2	328	.018
Education	.931	5.503	4	602	.001

[a] Exact Statistic

Table 33

Analysis of Variance for Job Pressure and Lack of Organizational Support Frequency Scores by Gender

Source	Dependent Variable	Type III SS	*df*	Mean Square	*F*	Sig.
Gender	Job Pressure Frequency	24.655	1	24.655	6.099	.014
	Lack of Organizational Support Frequency	5.850	1	5.850	1.616	.205

($p < .05$)

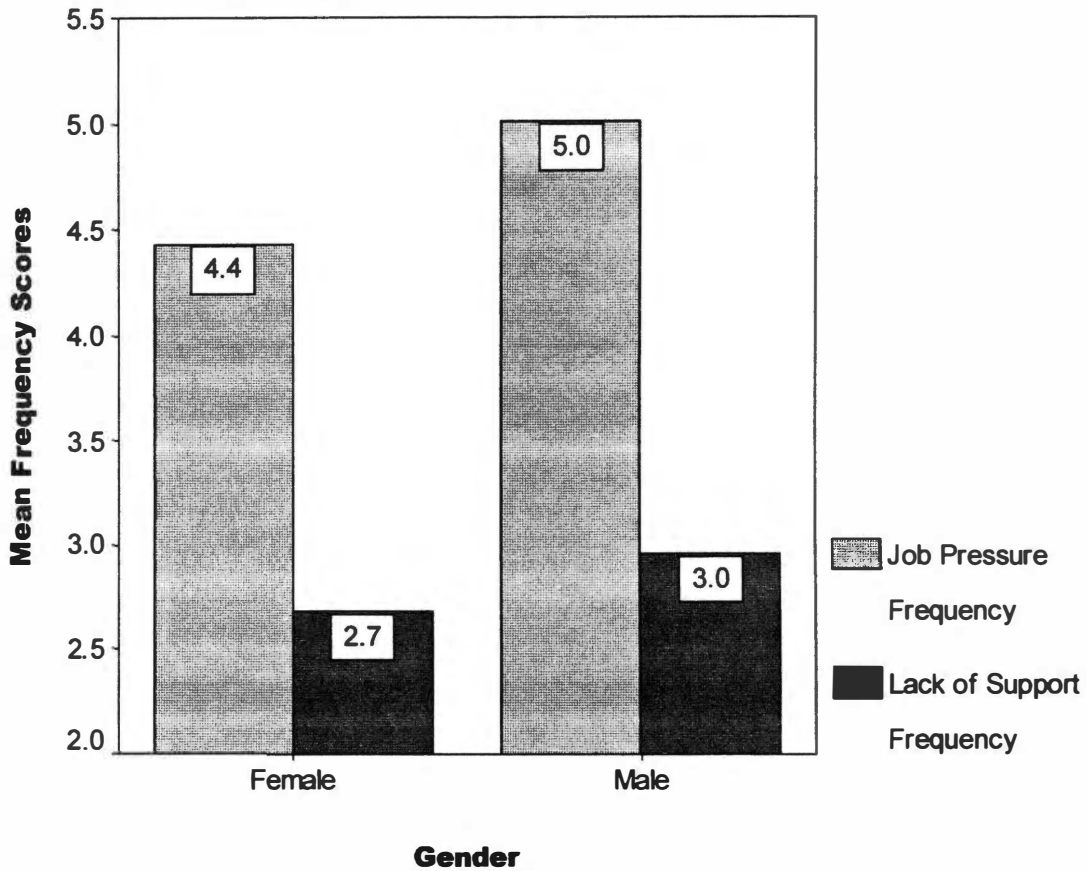

Figure 7: **Mean job pressure and lack of organizational support frequency scores by gender.**

Table 34

Analysis of Variance for Job Pressure and Lack of Organizational Support Frequency Scores by Ethnicity

Source	Dependent Variable	Type III SS	*df*	Mean Square	*F*	Sig.
Ethnicity	Job Pressure Frequency	32.107	1	32.107	7.987	.005
	Lack of Organizational Support Frequency	2.682	1	2.682	.739	.391

($p < .05$)

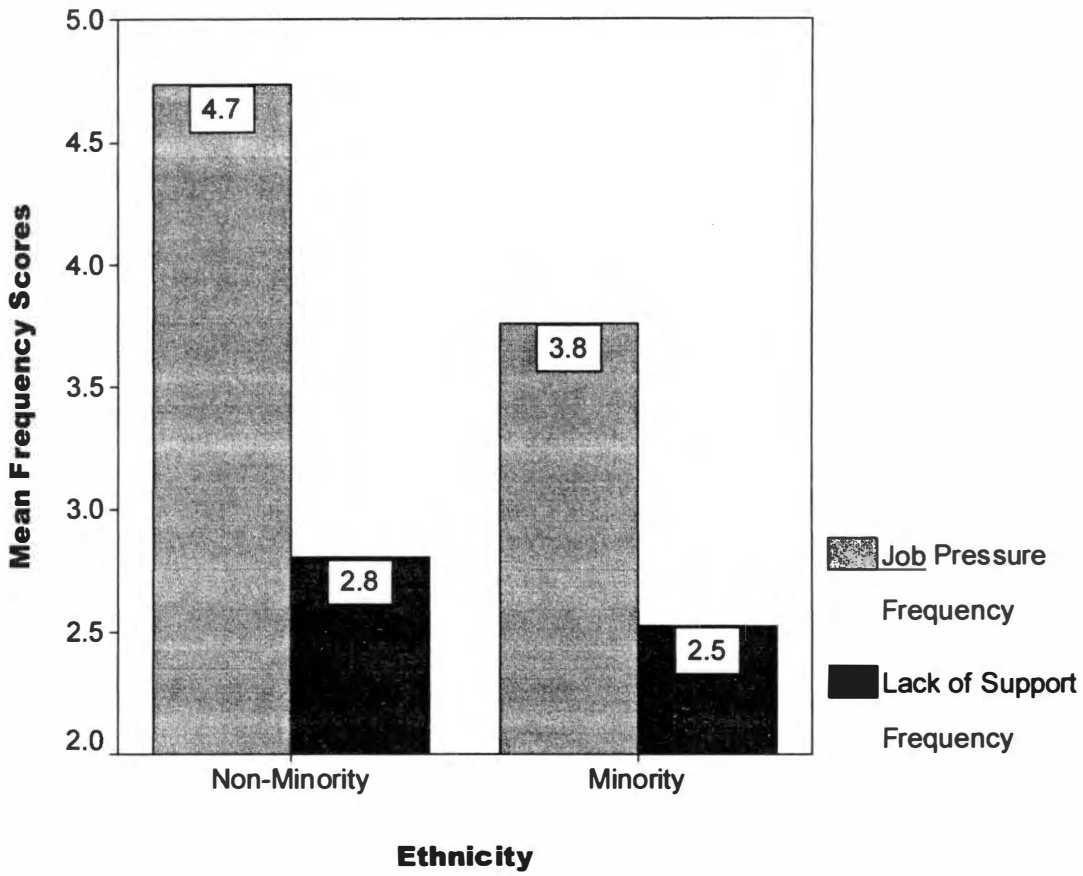

Figure 8: **Mean job pressure and lack of organizational support frequency scores by ethnicity.**

Analysis of variance statistics also indicated that significant differences existed among education levels for job pressure frequency (p=.001) as well as lack of organizational support frequency (p=.017) and are presented in Table 35. Figure 9 exhibits clear trends for the frequency of occurrence of both job stress dimensions. Employees with high school educations reported the fewest occurrences of job pressure and lack of organizational support, while employees with master's or Ph.D. degrees reported the most occurrences in both dimensions. Frequency scores for employees with associate's or bachelor's degrees fell in between.

Post hoc analysis was utilized to determine where significant differences in frequency scores existed among education levels. Tukey's HSD test (Table 36) indicated that significant differences were found between job pressure frequency scores for employees with high school educations and those with master's or Ph.D. degrees (p= .001), as well as between those with associate's or bachelor's degrees and master's or Ph.D. degrees (p=.026). When the frequency scores for the lack of organizational support dimension were examined, significant differences were noted only between employees with high school educations and those attaining a master's or Ph.D. degree (p=.017).

A series of multivariate analysis of variance was also utilized to determine whether or not job pressure severity or lack of organizational support severity scores were significantly influenced by the demographic variables age, gender, ethnicity, or education (Table 37). Wilks' Lambda values indicated significant findings for education, while other variables had no significant influence on severity scores. An analysis of variance test of between-subject effects was utilized to further examine the significant finding, with results outlined in Table 38. The analysis revealed that education had a

Table 35

Analysis of Variance for Job Pressure and Lack of Organizational Support Frequency Scores by Education Level

Source	Dependent Variable	Type III SS	*df*	Mean Square	*F*	Sig.
Education Level	Job Pressure Frequency	78.383	2	39.191	10.595	.001
	Lack of Organizational Support Frequency	28.837	2	14.419	4.123	.017

($p<.05$)

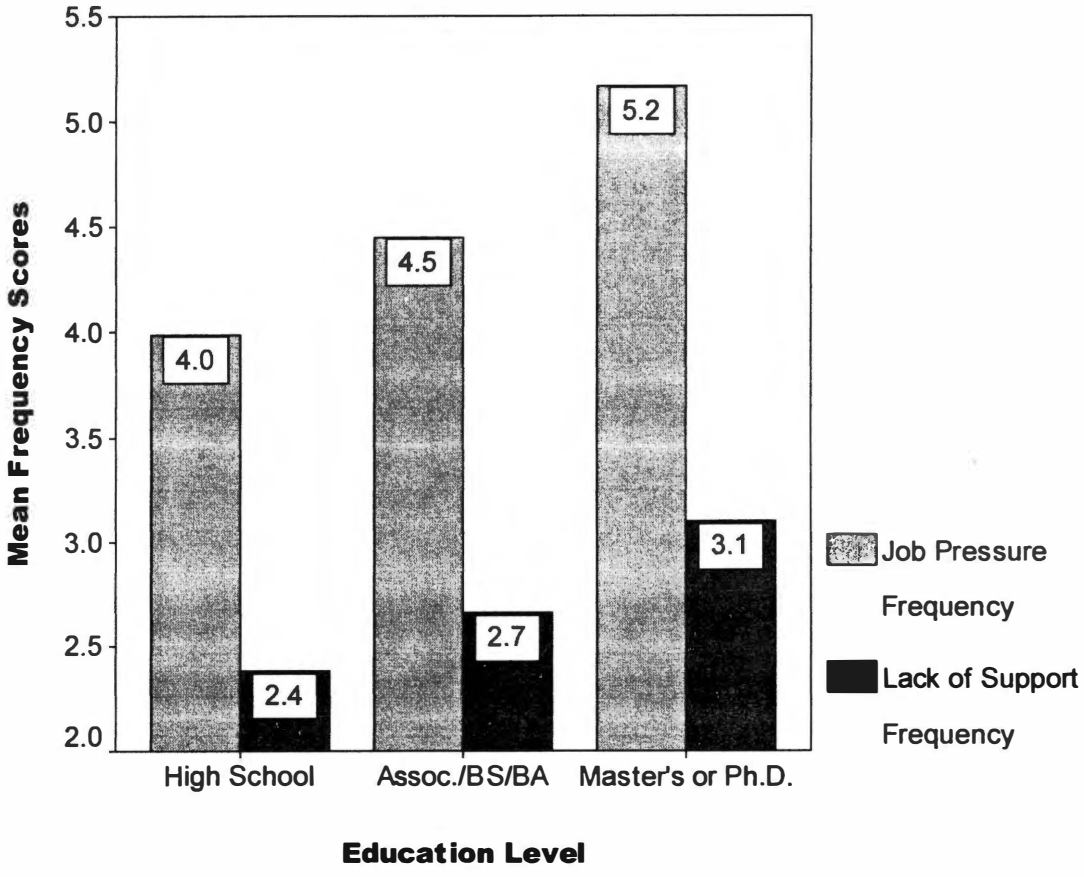

Figure 9: ***Mean job pressure and lack of organizational support frequency scores by education level.***

Table 36

Tukey's HSD Post Hoc Analysis of Job Pressure and Lack of Organizational Support Frequency Scores by Education Level

Dependent Variable	Education Level	Education Level	Mean Difference	Std. Error	Sig.
Job Pressure Frequency	High School	Associate's or Bachelor's Degree	-.46	.315	.308
		Master's or Ph.D.	-1.18*	.267	.001
	Associate's or Bachelor's Degree	High School	.46	.315	.308
		Master's or Ph.D.	-.72*	.275	.026
	Master's or Ph.D.	High School	1.18*	.267	.000
		Associate's or Bachelor's Degree	.72*	.275	.026
Lack of Organizational Support Frequency	High School	Associate's or Bachelor's Degree	-.277	.3067	.638
		Master's or Ph.D.	-.716*	.2593	.017
	Associate's or Bachelor's Degree	High School	.277	.3067	.638
		Master's or Ph.D.	-.439	.2677	.231
	Master's or Ph.D.	High School	.716*	.2593	.017
		Associate's or Bachelor's Degree	.439	.2677	.231

*. The mean difference is significant at the .05 level.

Table 37

Multivariate Analyses of Job Pressure Severity and Lack of Organizational Support Severity Scores by Demographic Variables

Effect	Wilks' Lambda Value	*F*[a]	*df*	Error	Sig.
Age	.984	1.301	4	654	.268
Gender	.990	1.656	2	329	.192
Ethnicity	1.000	.060	2	329	.942
Education	.933	5.350	4	604	.001

[a]. Exact Statistic

Table 38

Analysis of Variance for Job Pressure and Lack of Organizational Support Severity Scores by Education Level

Source	Dependent Variable	Type III SS	*df*	Mean Square	*F*	Sig.
Education	Job Pressure Severity	6.536	2	3.268	1.913	.149
	Lack of Organizational Support Severity	46.826	2	23.413	10.810	.001

$p < .05$

significant main effect on lack of organizational support severity scores ($p < .001$) but no significant effect on job pressure severity scores ($p = .149$). Figure 10 illustrates mean severity scores by education level, indicating as education levels increased, both job pressure and lack of organizational support severity scores also increased.

Tukey's HSD test was used for post hoc analysis of the severity scores; results are reported in Table 39. The analysis found that significant differences existed between lack of organizational support severity scores for the high school and associate's or B.S. degree levels ($p = .027$) and for the high school and M.S. or Ph.D. levels ($p = .001$). No statistically significant difference was noted between severity scores for those with associate's or bachelor's degrees and those with master's or Ph.D. degrees ($p < .05$). The post hoc analysis also indicated that no significant differences were found in job pressure severity scores between any of the education levels ($p < .05$).

The third phase of investigation for the first hypothesis addressed whether or not demographic variables significantly influenced individual stressor scores. Only the 15 stressors with the highest correlations (Table 19) with turnover intentions were examined in this phase of the investigation. To clarify the relationship of these individual stressors with the demographic variables, Spearman rank correlations were calculated. The results, presented in Table 40, indicated significant relationships between gender and five stressors: (a) *Working Overtime* ($r = .228, p < .01$), (b) *experiencing negative attitudes toward organization* ($r = .212, p < .01$), (c) *insufficient personnel to handle an assignment* ($r = .212, p < .01$), (d) *competition for advancement* ($r = .133, p < .05$), and (e) *conflicts with other departments* ($r = .271, p < .01$). When the mean individual

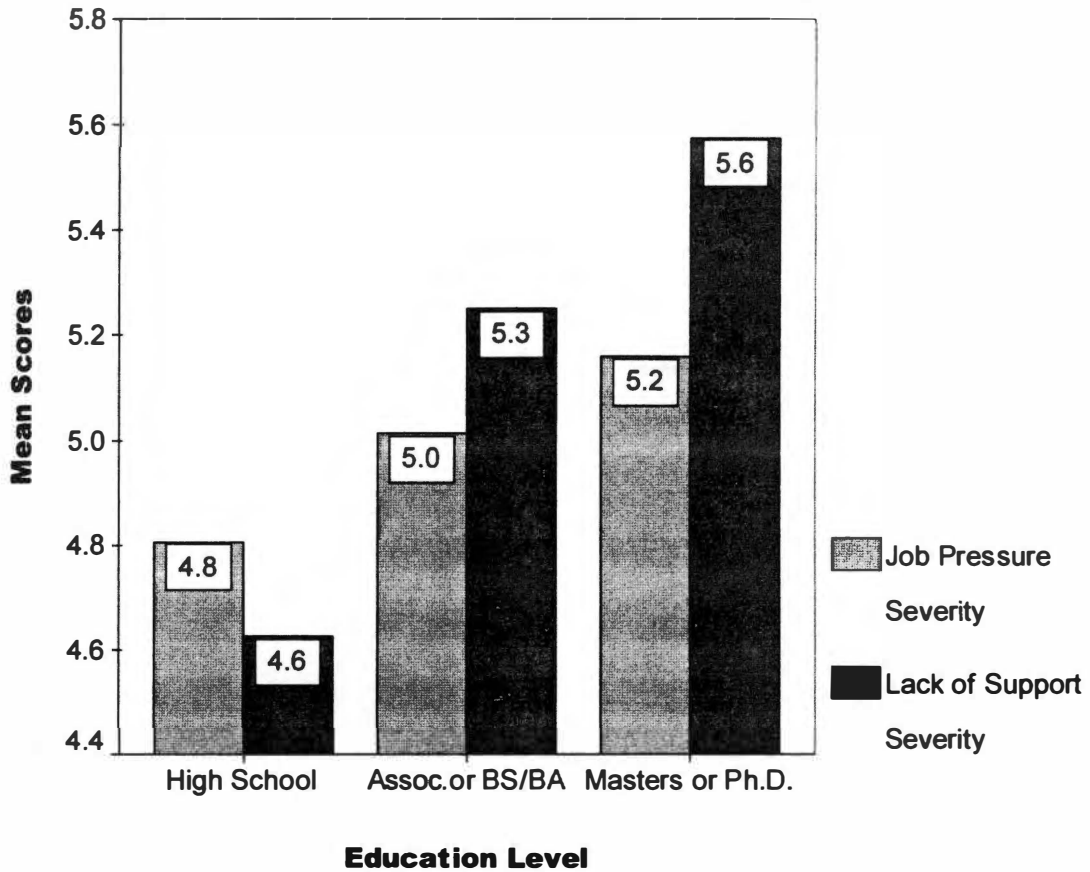

Figure 10. **Mean job pressure and lack of organizational support severity scores by education level.**

Table 39

Tukey's HSD Post Hoc Analysis of Job Pressure and Lack of Organizational Support Severity Scores by Education Level

Dependent Variable	Education Level	Education Level	Mean Difference	Std. Error	Sig.
Job Pressure Severity	High School	Associate's or Bachelor's Degree	-.207	.2136	.596
		Masters or Ph.D.	-.353	.1813	.127
	Associate's or Bachelor's Degree	High School	.207	.2136	.596
		Masters or Ph.D.	-.146	.1862	.713
	Masters or Ph.D.	High School	.353	.1813	.127
		Associate's or Bachelor's Degree	.146	.1862	.713
Lack of Organizational Support Severity	High School	Associate's or Bachelor's Degree	-.624*	.2405	.027
		Masters or Ph.D.	-.949*	.2041	.001
	Associate's or Bachelor's Degree	High School	.624*	.2405	.027
		Masters or Ph.D.	-.324	.2097	.270
	Masters or Ph.D.	High School	.949*	.2041	.001
		Associate's or Bachelor's Degree	.324	.2097	.270

*. The mean difference is significant at the .05 level.

Table 40

Spearman Rank Correlations of Demographic Variables and Selected Individual Stressor Mean Scores from JSS

Individual Stressors	Gender	Age	Ethnicity	Education Level
Working overtime	.228 **	-.193 **	-.163 **	.418 **
Lack of opportunity for advancement	-.082	.015	.026	-.116 *
Fellow workers not doing their job	.008	-.106	-.095	.090
Inadequate support by supervisor	.072	-.100	-.008	.176 **
Lack of recognition for good work	.084	-.032	-.055	.076
Performing tasks not in job description	.046	-.017	-.052	.063
Assignment of increased responsibility	.025	-.116 *	-.070	.043
Difficulty getting along with supervisor	-.020	-.044	.056	.034
Experiencing negative attitudes toward organization	.212 **	-.038	-.055	.307 **
Insufficient personnel to handle an assignment	.212 **	-.059	-.097	.336 **
Inadequate salary	-.049	-.100	.004	-.092
Competition for advancement	.133 *	.123 *	-.010	.061
Poor or inadequate supervision	.090	-.036	-.008	.182 **
Poorly motivated coworkers	.029	-.105	-.066	.105
Conflicts with other departments	.271 **	.019	.008	.210 **

** Correlation is significant at the .01 level (2-tailed).

*. Correlation is significant at the .05 level (2-tailed).

stressor scores were examined by gender (Table 41), it was determined that scores were higher for males in all cases. The greatest disparity occurred between scores for the stressors *working overtime and insufficient personnel to handle an assignment,* while scores for *competition for advancement* were very similar.

Education level was correlated significantly with seven individual stressors: (a) *working overtime* ($r = .418, p < .01$), (b) *lack of opportunity for advancement* ($r = -.116, p < .05$), (c) *inadequate support by supervisor* ($r = .176, p < .01$), (d) *experiencing negative attitudes toward the organization* ($r = .307, p < .01$), (e) *insufficient personnel to handle an assignment* ($r = .336, p < .01$), (f) *poor or inadequate supervision* ($r = .182, p < .01$), and (g) *conflicts with other departments* ($r = .210, p < .01$). A review of mean individual stressor scores by education levels (Table 42) indicated clear trends. As the level of education increased, mean scores for each stressor except one also increased. The one exception was *lack of opportunity for advancement*, which exhibited an inverse trend of higher scores for those with only high school educations.

Age was significantly correlated with three stressors: (a) *working overtime* ($r = .193, p < .01$), (b) *assignment of increased responsibility* ($r = -.116, p < .05$), and (c) *competition for advancement* ($r = .123, p < .05$). The trend of decreasing job stress scores when examined by age (Table 43) was noted for two stressors, *working overtime and assignment of increased responsibilities.* The third stressor, *competition for advancement,* conveyed mixed results, with those in the oldest age group reporting the highest scores.

Ethnicity was significantly correlated only with one stressor, *working overtime* ($r = -.163, p < .01$). A review of mean scores for the single stressor indicated higher scores for non-minorities (31.31, $SD = 23.42$) than minorities (19.61, $SD = 21.112$).

Table 41

Mean Scores for Selected Individual Stressors by Gender

Individual Stressors	Gender	*n*	Mean Scores	Std. Deviation	Std. Error Mean
Working overtime	Female	219	26.58	24.491	1.655
	Male	111	36.65	19.722	1.872
Experiencing negative attitudes toward the organization	Female	219	16.66	21.898	1.480
	Male	111	25.06	24.357	2.312
Insufficient personnel to handle an assignment	Female	219	21.07	26.328	1.779
	Male	111	31.68	26.709	2.535
Conflicts with other departments	Female	217	5.02	12.903	.876
	Male	110	9.47	15.196	1.449
Competition for advancement	Female	216	8.44	18.951	1.289
	Male	111	8.62	14.876	1.412

Table 42

Mean Scores for Selected Individual Stressors From JSS by Education Level of TCES Employees

Individual Stressors	Education Level	*n*	Mean Scores	Std. Deviation	Std. Error
Working overtime	High School	78	13.58	17.914	2.028
	Associate's or Bachelor's Degree	71	36.86	23.104	2.742
	Master's or Ph.D.	156	38.48	20.358	1.630
Lack of opportunity for advancement	High School	74	26.41	32.972	3.833
	Associate's or Bachelor's Degree	68	24.90	30.686	3.721
	Master's or Ph.D.	152	15.99	24.430	1.982
Inadequate support by supervisor	High School	78	10.76	20.240	2.292
	Associate's or Bachelor's Degree	72	14.04	22.491	2.651
	Master's or Ph.D.	155	19.21	24.978	2.006
Experiencing negative attitudes toward organization	High School	77	11.25	18.349	2.091
	Associate's or Bachelor's Degree	72	18.13	22.614	2.665
	Master's or Ph.D.	155	25.45	24.099	1.936
Insufficient personnel to handle an assignment	High School	77	12.84	21.318	2.429
	Associate's or Bachelor's Degree	71	23.92	26.119	3.100
	Master's or Ph.D.	156	32.95	27.134	2.172
Poor or inadequate supervision	High School	78	6.64	17.159	1.943
	Associate's or Bachelor's Degree	72	9.50	19.054	2.245
	Master's or Ph.D.	155	13.52	22.506	1.808
Conflicts with other departments	High School	76	4.32	12.199	1.399
	Associate's or Bachelor's Degree	70	5.14	9.696	1.159
	Master's or Ph.D.	155	9.09	16.616	1.335

Table 43

Mean Scores for Selected Individual Stressors from JSS by Age of TCES Employees

Individual Stressors	Age Groups	*n*	Mean Scores	Std. Deviation	Std. Error
Working overtime	40 or younger	106	36.02	22.424	2.178
	41-50	106	29.62	23.945	2.326
	51 or older	117	25.04	22.817	2.109
Assignment of increased responsibility	40 or younger	107	27.21	23.021	2.226
	41-50	103	24.17	22.965	2.263
	51 or older	118	22.11	22.838	2.102
Competition for advancement	40 or younger	106	7.89	18.933	1.839
	41-50	105	6.30	13.198	1.288
	51 or older	115	11.15	19.731	1.840

Null Hypothesis Two

There are no differences among job stress scores as measured by the JSS for TCES employees when compared by the job-related characteristics job classification, level in organization, length of service with TCES, length of service in current position, and job assignment.

Job stress subscale scores for job pressure and lack of organizational support were examined to determine if differences existed between the job-related characteristics job classification, level in the organization, length of service with TCES, service in current position, and job assignment. Based on a series of multivariate analyses of variance, job classification, $F(2,328) = 9.065$, $p = .001$, and job assignment, $F(6,390) = 2.985$, $p = .007$, was determined to be significantly different, resulting in the rejection of H_O2.

Wilks' Lambda values and related statistics for the job-related characteristics examined in this study are presented in Table 44. Further investigation of the job classification variable using analysis of variance examined the between subjects effects, which indicated significant differences for both job pressure ($p = .001$) and lack of organizational support index scores ($p = .025$). These findings are outlined in Table 45.

A summary of mean scores for the professional and support groups is presented in Figure 11. The data revealed that job pressure and lack of organizational support scores were both higher for the professional group than for the support group. Job pressures scores were also found to be higher for both groups than lack of organizational support scores.

Analysis of variance statistics for job pressure and for lack of organizational support index scores by job assignment are outlined in Table 46. The analysis revealed

Table 44

Multivariate Analyses of Job Pressure and Lack of Organizational Support Index Scores by Job-related Variables

Effect	Wilk's Lambda Value	*F*[a]	*df*	Error	Sig.
Job classification	.948	9.065	2	328	.001
Level in organization	.988	.958	4	646	.430
Tenure with TCES	.980	1.113	6	650	.353
Tenure in current position	.991	.483	6	648	.821
Job assignment	.914	2.985	6	390	.007

[a] Exact Statistic

Table 45

Analysis of Variance for Job Pressure and for Lack of Organizational Support Index Scores by Job Classification

Source	Dependent Variable	Type III SS	*df*	Mean Square	*F*	Sig.
Job Classification	Job Pressure Index	3261.106	1	3261.106	17.711	.001
	Lack of Organizational Support Index	1016.783	1	1016.783	5.062	.025

($p < .05$)

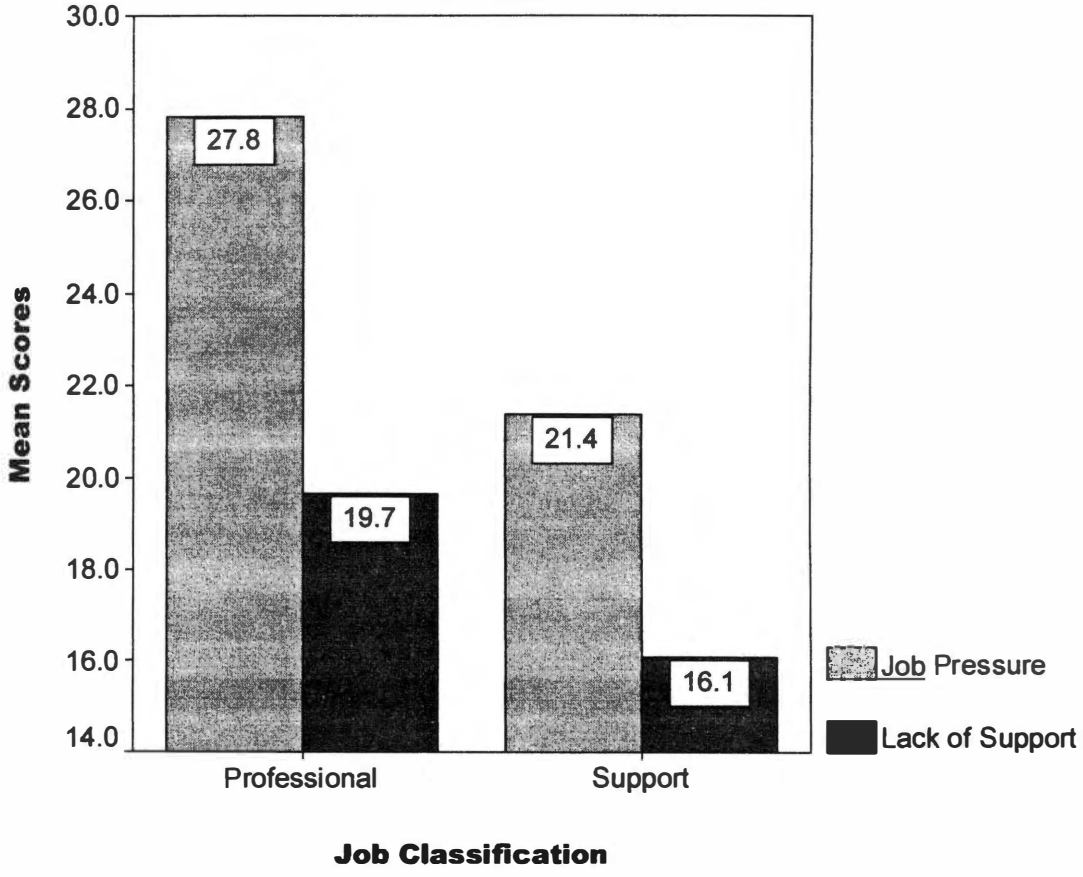

Figure 11. **Mean job pressure and lack of organizational support index scores by job classification.**

Table 46

Analysis of Variance for Job Pressure and Lack of Organizational Support Index Scores by Job Assignment

Source	Dependent Variable	Type III SS	*df*	Mean Square	*F*	Sig.
Job Assignment	Job Pressure Index	930.949	3	310.316	2.072	.105
	Lack of Organizational Support Index	1348.322	3	449.441	2.331	.076

$p < .05$

that neither job pressure nor lack of organizational support index scores was significantly different among job assignment groups when evaluated separately. Mean job assignment scores are presented in Figure 12, illustrating that while differences among groups were not found to be significant, trends did exist. County directors reported the highest job pressure scores, while employees with district and state assignments reported the lowest job pressure scores. However, when lack of organizational support scores were examined, county extension agents with two or more work areas of responsibility had the highest scores, while county directors had the lowest scores.

When job pressure and lack of organizational support severity and frequency scores were examined by the job-related variables utilized in this study using univariate analyses, no significant differences were found for any variable ($p < .05$). This finding is in contrast with the findings from the earlier analysis of demographic characteristics and job stress severity scores, where education groups were determined to be significantly different ($p < .05$).

To examine whether or not job-related variables affected individual stressor scores, Spearman rank correlations were calculated for 15 stressors identified in Table 19 as having highly significant relationships with turnover intentions. Results of the correlation analysis are presented in Table 47 and indicate significant relationships existed between one or more job-related variables and 13 stressors. Only the stressors *difficulty getting along with supervisor* and *competition for advancement* were not significantly associated with at least one job-related variable.

Job classification was significantly associated with 11 of the 15 stressors outlined in Table 47. This analysis revealed a positive relationship for two stressors with job

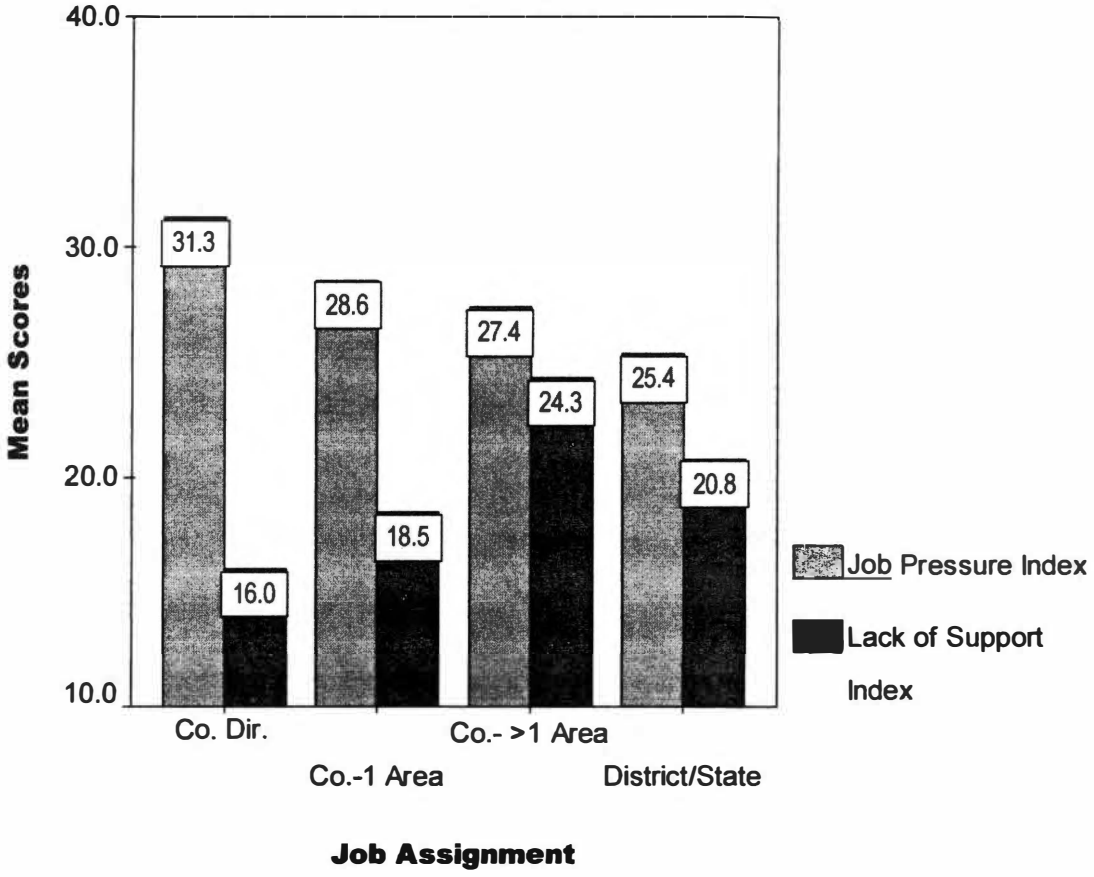

Figure 12. **Mean job pressure and lack of organizational support index scores by job assignment.**

Table 47

Spearman Rank Correlations for Job-related Variables and Selected Individual Stressors From the JSS

Individual Stressors	Job Classification	Level in Organization	Current Assignment	Tenure with TCES	Tenure in Current Position
Working overtime	-.589**	-.044	-.100	.048	-.041
Lack of opportunity for advancement	.173**	.096	.149*	-.040	-.052
Fellow workers not doing their job	-.121*	.056	.092	-.037	-.125*
Inadequate support by supervisor	-.172**	.012	.134	.057	.020
Lack of recognition for good work	-.103	.043	.095	.149**	.102
Performing tasks not in job description	-.045	.024	-.083	.111*	.011
Assignment of increased responsibility	-.149**	.049	-.012	.046	-.065
Difficulty getting along with supervisor	.000	.029	.093	.061	.066
Experiencing negative attitudes toward oganization	-.281**	.098	.063	.120*	.067
Insufficient personnel to handle an assignment	-.378**	.051	.071	.083	.001
Inadequate salary	.108*	-.064	-.128	-.068	-.060
Competition for advancement	-.082	-.045	-.051	.100	.053
Poor or inadequate supervision	-.162**	.001	.078	.090	.066
Poorly motivated coworkers	-.110*	.096	.100	-.044	-.060
Conflicts with other departments	-.206**	.215**	.154*	.073	.029

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

classification: *lack of opportunity for advancement* and *inadequate salary*, and negative relationships with nine others, including (a) *working overtime,* (b) *fellow workers not doing their job*, (c) *inadequate support by supervisor*, (d) *lack of recognition for good work,* (e) *assignment of increased responsibility*, (f) *experiencing negative attitudes toward organization,* (g) *insufficient personnel to handle an assignment,* (h) *poor or inadequate supervision*, (i) *poorly motivated coworkers,* and (j) *conflicts with other departments*. Mean scores for both groups are presented in Table 48, indicating that each stressor was experienced and perceived differently. Two stressors, *lack of opportunity for advancement* and *inadequate salary* had higher mean scores for the support group, while the remaining nine stressors indicated higher mean scores for the professional group.

Length of service with TCES was significantly and positively associated with three stressors: (a) *lack of recognition for good work*, (b) *performing tasks not in job description,* and (c) *experiencing negative attitudes toward the organization.* A review of the means for these stressors (Table 49) revealed that mean stress scores tended to increase with length of service for *lack of recognition for good work* and *experiencing negative attitudes toward the organization.* Mean scores for the third stressor, *performing tasks not in job description,* showed no specific pattern.

This review of findings for the individual stressors significantly associated with turnover intentions indicated that scores for each individual stressor may be influenced by job-related variables. Other factors, including gender and education, also appeared to influence specific stressor scores.

Table 48

Mean Job Stress Index Scores of Selected Stressors from JSS by Job Classification

Individual Stressors	Group	*n*	Mean Scores	Std. Deviation	Std. Error Mean
Working overtime	Professional	201	40.56	20.179	1.423
	Support	130	13.48	18.010	1.580
Lack of opportunity for advancement	Professional	194	15.82	24.315	1.746
	Support	127	28.57	33.024	2.930
Fellow workers not doing their job	Professional	200	28.20	27.644	1.955
	Support	130	23.05	27.774	2.436
Inadequate support by supervisor	Professional	200	17.86	24.430	1.727
	Support	132	12.17	22.670	1.973
Assignment of increased responsibility	Professional	200	26.21	22.207	1.570
	Support	130	21.38	23.829	2.090
Experiencing negative attitudes toward the organization	Professional	200	23.51	23.611	1.670
	Support	131	13.34	20.734	1.812
Insufficient personnel to handle an assignment	Professional	201	32.16	27.368	1.930
	Support	130	13.17	21.568	1.892
Inadequate salary	Professional	201	40.20	30.963	2.184
	Support	132	46.08	30.955	2.694
Poor or inadequate supervision	Professional	201	12.34	21.279	1.501
	Support	131	8.63	20.449	1.787
Poorly motivated coworkers	Professional	199	27.62	27.915	1.979
	Support	128	21.68	25.991	2.297
Conflicts with other departments	Professional	200	8.00	15.253	1.079
	Support	128	4.16	10.930	.966

Table 49

Mean Job Stress Index Scores for Selected Stressors From JSS by Length of Service With TCES

Individual Stressors	Length of Service	*n*	Mean Scores	Std. Deviation	Std. Error
Lack of recognition for good work	5 years or less	90	14.41	22.622	2.385
	6-10 years	66	14.76	20.656	2.543
	11-20 years	67	22.07	24.162	2.952
	21 years or more	106	22.35	26.745	2.598
	Total	329	18.60	24.180	1.333
Performing tasks not in job description	5 years or less	91	18.87	21.241	2.227
	6-10 years	66	27.59	21.095	2.597
	11-20 years	67	24.01	22.489	2.747
	21 years or more	106	25.27	21.649	2.103
	Total	330	23.72	21.741	1.197
Experiencing negative attitudes toward organization	5 years or less	92	14.90	21.472	2.239
	6-10 years	66	18.65	21.545	2.652
	11-20 years	65	25.23	26.845	3.330
	21 years or more	107	20.45	22.261	2.152
	Total	330	19.48	23.064	1.270

Null Hypothesis Three

There are no differences in turnover intentions of TCES employees as measured by the Intention to Turnover Scale when compared by the demographic characteristics of age, ethnicity, gender, and educational level.

The demographic characteristics of age, ethnicity, gender, and educational level served as independent variables in a series of univariate ANOVAs that examined turnover intentions scores of TCES employees. Significant differences were found among scores by age groups ($p < .001$) and by education levels ($p < .05$). No significant differences were noted for ethnicity, $F(1,330) = p < .05$, or for gender $F(1,330) = p < .05$. Based on these findings, H_O3 was rejected.

Table 50 reports analysis of variance statistical data for turnover intentions by age groups, indicating a significant difference among age groups ($p < .001$). Post hoc analysis followed using Tukey's HSD; results are reported in Table 51. The analysis found that significant differences only existed between the 40 years or younger group and the 51 years or older group ($p < .05$). A bar graph of mean turnover intention scores by age groups is presented in Figure 13. This information shows that as age increased, turnover intentions scores decreased.

Statistics from analysis of variance for turnover intentions by education level are presented in Table 52. Figure 14 provides mean scores, indicating that employees with associate's or bachelor's degrees reported the highest turnover intentions scores, while those attaining only high school educations had the lowest scores. Post hoc analysis using Tukey's HSD (Table 53) pointed out that significant differences were noted between

Table 50

Analysis of Variance for Turnover Intentions Scores by Age

Source	Type III SS	*df*	Mean Square	*F*	Sig.
Age	35.853	2	17.927	8.088	.001
Error	727.021	328	2.217		
Corrected Total	762.874	330			

($p < .01$)

Table 51

Tukey's HSD Post Hoc Analysis of Mean Turnover Intentions Scores by Age

Age	Age	Mean Difference	Std. Error	Sig.
40 years or younger	41-50 years	.3998	.20402	.124
	51 years or older	.7990*	.19874	.001
41-50 years	40 years or younger	-.3998	.20402	.124
	51 years or older	.3992	.19924	.113
51 years or older	40 years or younger	-.7990*	.19874	.001
	41-50 years	-.3992	.19924	.113

*. The mean difference is significant at the .05 level.

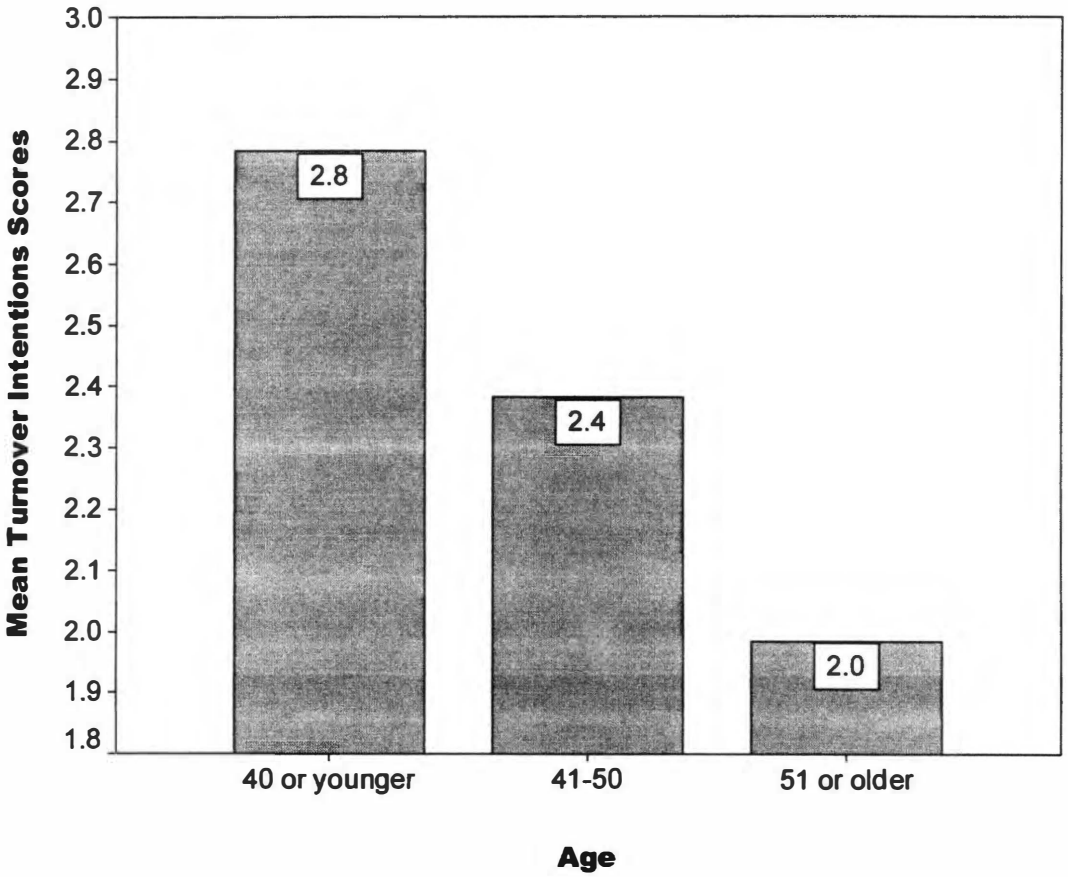

Figure 13. **Mean turnover intentions scores by age.**

Table 52

Analysis of Variance for Turnover Intentions Scores by Education Level

Source	Type III SS	*df*	Mean Square	*F*	Sig.
Education Level	20.181	2	10.090	4.42	.013
Error	691.300	303	2.282		
Corrected Total	711.481	305			

($p < .05$)

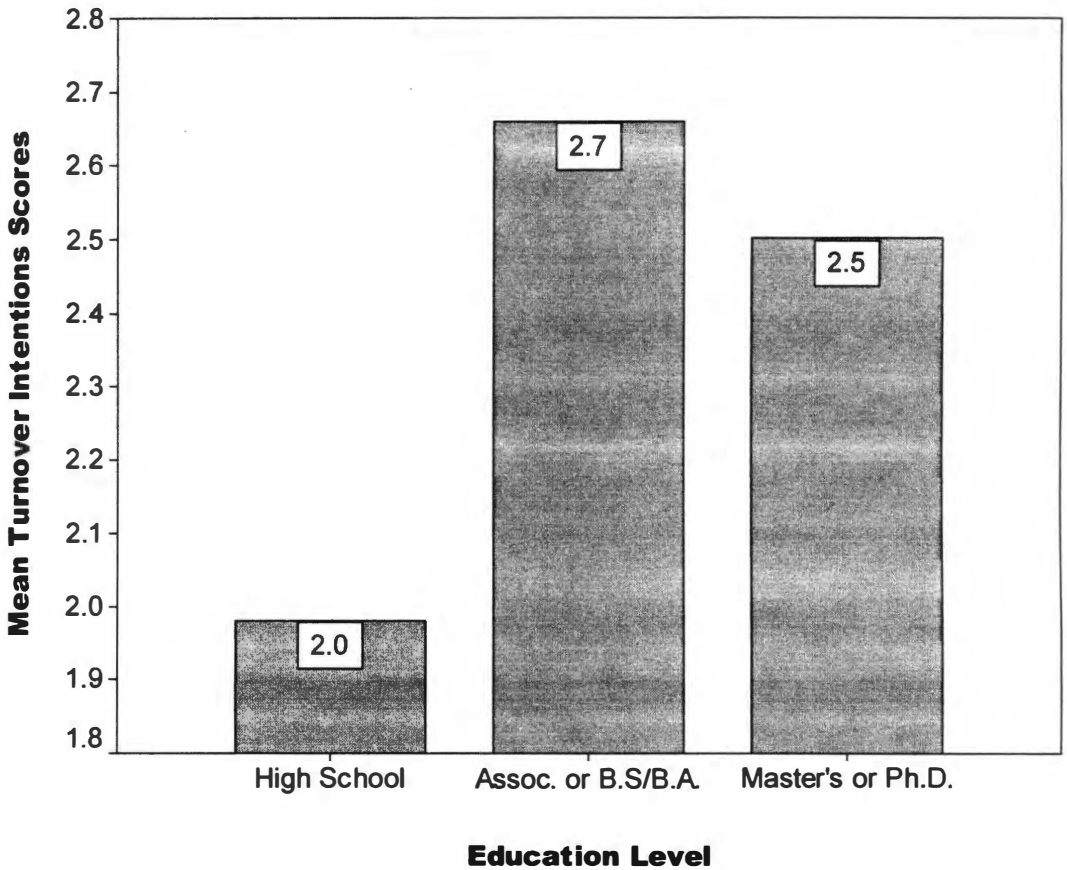

Figure 14. **Mean turnover intentions scores by education level.**

Table 53

Tukey's HSD Post Hoc Analysis of Mean Turnover Intentions Scores by Education Level

Education Level	Education Level	Mean Difference	Std. Error	Sig.
High School	Associate's or Bachelor's Degree	-.6790*	.24686	.017
	Master's or Ph.D.	-.5214*	.20946	.036
Associate's or Bachelor's Degree	High School	.6790*	.24686	.017
	Master's or Ph.D.	.1576	.21520	.745
Master's or Ph.D.	High School	.5214*	.20946	.036
	Associate's or Bachelor's Degree	-.1576	.21520	.745

*. The mean difference is significant at the .05 level.

scores for employees with high school educations and both the associate's or bachelor's degree and master's or Ph.D. groups ($p < .05$).

Null Hypothesis Four

There are no differences in turnover intentions of TCES employees as measured by the Intention to Turnover Scale when compared by the job-related characteristics job classification, level in organization, length of service with TCES, years of service in current position, and job assignment.

A series of univariate analyses of variance were utilized to determine if the job-related characteristics job classification, level in organization, length of service with TCES, service in current position, or job assignment had significant influences on the turnover intentions scores of TCES employees. These analyses revealed that only the variable *length of service with TCES* (Table 54) was significant, $F(3,328) = 3.586$, $p = .014$, resulting in the rejection of H_O4. Job classification, $F(1,330) = 1.125$, $p = .290$, level in the organization, $F(2,326) = .819$, $p = .442$, service in current position, $F(3,327) = 2.430$, $p = .065$, and job assignment, $F(5,194) = .823$, $p = .535$, did not have a significant effect on turnover intention scores.

Tukey's HSD was used in post hoc analysis of mean turnover intentions scores by length of service with TCES. This test revealed the only significant difference was found between employees with 5 years or less employment and those with 21 years or more with TCES ($p < .05$). Details of this analysis are presented in Table 55. A review of the mean turnover intention scores of TCES employees by length of service disclosed that as years of service with TCES increased, turnover intentions scores decreased (Figure 15).

Table 54

Analysis of Variance for Turnover Intentions Scores by Length of Service with TCES

Source	Type III SS	*df*	Mean Square	*F*	Sig.
Tenure with TCES	24.288	3	8.096	3.586	.014
Error	740.459	328	2.257		
Corrected Total	764.747	331			

($p < .05$)

Table 55

Tukey's HSD Post Hoc Analysis for Turnover Intentions Scores by Length of Service with TCES

Length of Service	Length of Service	Mean Difference	Std. Error	Sig.
5 years or less	6-10 years	.2721	.24237	.676
	11-20 years	.2560	.24131	.714
	21 years or more	.6876*	.21363	.008
6-10 years	5 years or less	-.2721	.24237	.676
	11-20 years	-.0161	.26057	1.000
	21 years or more	.4155	.23517	.291
11-20 years	5 years or less	-.2560	.24131	.714
	6-10 years	.0161	.26057	1.000
	21 years or more	.4316	.23408	.255
21 years or more	5 years or less	-.6876*	.21363	.008
	6-10 years	-.4155	.23517	.291
	11-20 years	-.4316	.23408	.255

*. The mean difference is significant at the .05 level.

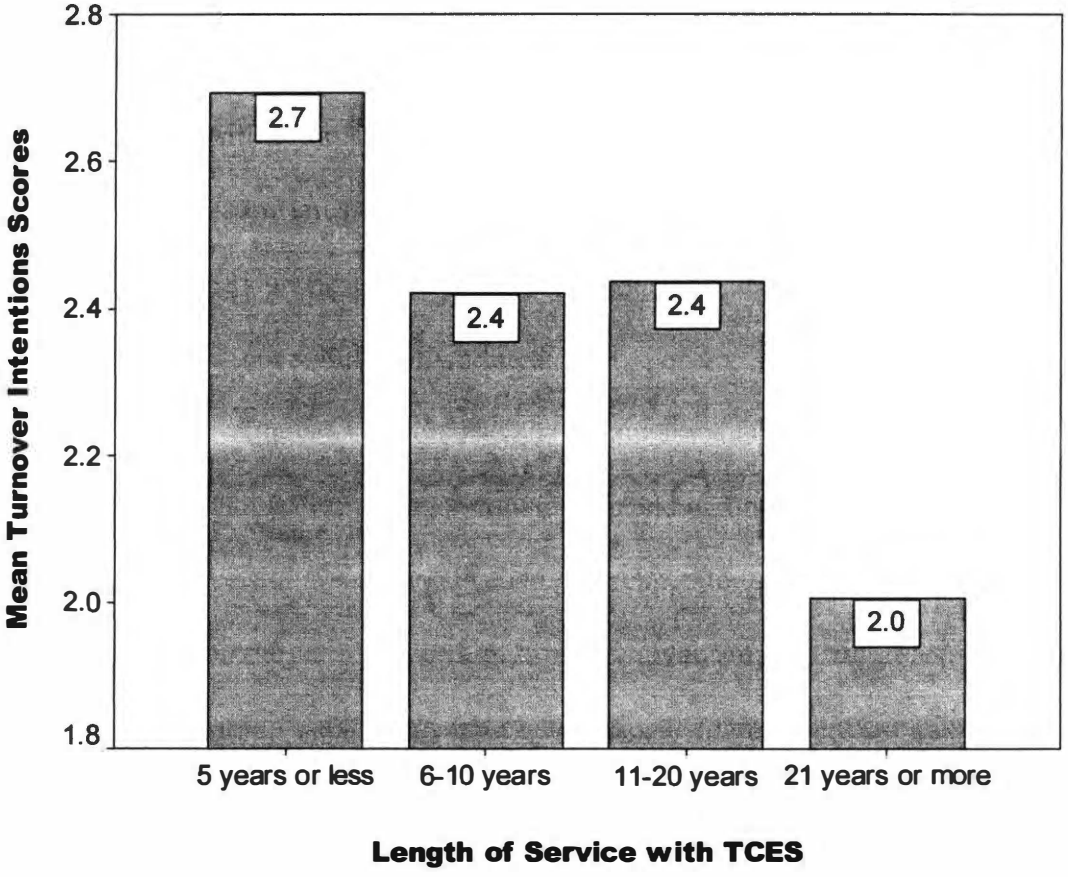

Figure 15. **Mean turnover intentions scores by length of service with TCES.**

Summary of Results and Findings

Eight research questions and four null hypotheses were designed to investigate job stress and turnover intentions of TCES employees, based on self-reported questionnaire data collected from 333 respondents. Statistical analyses revealed significant and positive relationships between job stress and turnover intentions of TCES employees, as well as between turnover intentions and the two dimensions of job stress, *job pressure* and *lack of organizational support*. The frequency that overall job stress and *lack of organizational support* occurred in the workplace was also significantly and positively related to turnover intentions of TCES employees, while job pressure was not.

The severity of overall job stress and lack of organizational support that occurred was found to be significantly and positively correlated with turnover intentions, while job pressure severity was not significantly related. When the individual stressors were examined, 22 of the 30 stressors had significant correlations with turnover intentions.

The attitudinal variables job satisfaction and organizational commitment were found to be significantly and negatively associated with turnover intentions, as well as with job stress, job pressure, and lack of organizational support. As job satisfaction and organizational commitment scores decreased, turnover intention scores increased. As job stress scores increased, job satisfaction and organizational commitment scores decreased. Multiple regression analyses revealed that the job satisfaction and organizational commitment constructs explained significant amounts of the variance in the turnover intentions construct.

Job satisfaction and organizational commitment were found to be significantly and positively related. When entered together into the regression model, the two variables

accounted for a larger portion of the variance in turnover intentions than when each variable was entered separately. The combination of variables that explained the largest percentage of variance (39.5%) in the turnover intentions construct included (a) lack of organizational support, (b) job satisfaction, (c) organizational commitment, (d) gender, and (e) length of service with TCES.

Spearman rank correlations utilizing the individual stressors significantly associated with turnover intentions revealed numerous significant associations with one or more of the demographic and job-related variables of interest in this study. A follow-up examination of mean scores for each of the variables revealed that each stressor was experienced uniquely, based on the demographic and job-related variables of the study participant. While no tests for significant difference were utilized to examine the means, a review of mean individual stressor scores indicates practical significance for TCES by providing insight into specific types of work-related stress that may impact a particular group of employees.

The four null hypotheses tested in this investigation were rejected. Differences were found in job stress scores when compared by education level, as well as by job classification and job assignment. Significant differences were also found in turnover intentions scores when examined by age and education level, as well as by length of service with TCES.

CHAPTER V

SUMMARY, MAJOR FINDINGS, DISCUSSION, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS

Chapter V presents a summary of the study, followed by a list of major findings. The third section includes a discussion of the results and findings. The researcher's conclusions follow, and were drawn based on the results of this investigation. Recommendations were made that evolved from the results of this study, and were grounded in the experiences of the researcher. The chapter concludes with implications for future research focusing on job stress and turnover intentions among Extension employee groups.

Summary of the Study

The main objective of this study was to determine the extent to which a relationship existed between job stress and voluntary turnover intentions among TCES employees. Demographic and job-related variables identified in the literature as historically influencing self-reported job stress and turnover intentions were examined to determine their contributions to the job stress-turnover relationship. The demographic and job-related variables gender, age, ethnicity, education level attained, job classification, length of service with TCES, length of service in current position, job assignment, and level in the organization were utilized to determine if significant differences existed in job stress and turnover intention scores among employees. The attitudinal variables job satisfaction and organizational commitment were examined as intervening variables in the job stress-turnover intentions relationship.

The population for this study consisted of all employees of TCES at the time of data collection who worked 30 or more hours weekly or had 75% or larger Extension appointments. To ensure adequate representation from both job classifications, the population was stratified by professional and support employees. A 50% random sample was drawn from each stratum, resulting in 411 employees included in the study sample. A response rate of 81% resulted in 333 employees serving as study participants, including 201 professional employees and 132 support employees.

Data for this study were collected through a self-reported questionnaire packet. Instruments used to collect data included the *Job Stress Survey (JSS), the Job Satisfaction Scale, Intent to Turnover Scale*, and the *Organizational Commitment Questionnaire.* Additional demographic and job-related information was also collected in the supplementary questionnaire.

Results of this investigation revealed that TCES support employees were mostly female with high school educations, while more than one-half of the professional employees were males with Bachelor's or graduate degrees. An employee profile encompassing both groups would suggest that TCES employees in general were mostly female, White, and over 40 years of age with a service record of 11 years or more with TCES. More than one-half of the employees had served in their current positions for ten years or less. Approximately two-thirds of the employees worked at the county level.

A series of statistical analyses, including Pearson *r* and Spearman rank correlations, and linear and multiple regression were utilized to respond to eight research questions designed to examine relationships between job stress and turnover intentions of TCES employees. These analyses revealed significant and positive relationships between

job stress, job pressure, and lack of organizational support with turnover intentions. The frequency that job stress and lack of organizational support occurred was also significantly and positively associated with turnover intentions, while the frequency of job pressure was not. Job stress and lack of organizational support severity was determined to also be significantly and positively related to turnover intentions, while job pressure severity was not significantly related.

Twenty-two of the 30 stressors had significant associations with turnover intentions. The attitudinal variables job satisfaction and organizational commitment were both determined to be significantly and negatively related to turnover intentions, as well as with job stress, job pressure, and lack of organizational support. Multiple regression analysis revealed that job satisfaction and organizational commitment explained a significant amount of the variance in the turnover intentions construct. Job satisfaction and organizational commitment were also found to be significantly and positively related to each other.

A series of MANOVAs and ANOVAs were utilized to test the four null hypotheses in this study, which were all rejected. Significant differences were found in job stress scores when compared by education level, as well as by job classification and job assignment. Significant differences were also found among turnover intention scores when examined by age and education levels, as well as by length of service with TCES.

Major Findings

Based on the results of statistical analyses outlined in Chapter IV, several major findings of statistical and practical significance emerged. These findings are outlined in this section.

1. TCES employees in general had relatively low intentions of leaving the organization, based on mean scores derived from the *Intent to Turnover* scale.
2. Overall job stress, as well as job pressure and lack of organizational support, were significantly and positively associated with turnover intentions. TCES employees with higher levels of overall job stress appeared to be most at risk of voluntarily leaving the organization.
3. While lack of organizational support scores were generally lower than job pressure scores, scores from this dimension of job stress appeared to have a greater influence on TCES employees' decision to stay with the organization, or to leave.
4. Overall job stress frequency and severity, as well as lack of organizational support frequency and severity, were significantly and positively related to turnover intentions. However, the frequency and severity of job pressure was not related to turnover intentions.
5. TCES employees as a group appeared to experience slightly more work-related stress than the norms established by Spielberger and Vagg (1999) for professional and clerical employees. The overall mean job pressure index and lack of organizational support index scores indicated that TCES employees generally experienced levels of job pressure moderately higher than norm, while experiencing lower levels of lack of organizational support.
6. TCES employees experienced a similar number of occurrences of overall job stress frequency as employees included in the norms established by Spielberger and Vagg. Mean job pressure frequency scores suggested that

TCES employees experienced slightly more occurrences of job pressure than the established norm, while also experiencing moderately fewer occurrences of lack of organizational support than the established norm (Spielberger & Vagg, 1999).

7. TCES employees reported levels of overall job stress severity that were similar to the norms established by Spielberger and Vagg (1999). However, mean scores indicated they reported experiencing moderately higher severity levels of job pressure severity and somewhat lower levels of lack of organizational support severity, when compared to the norms.
8. Twenty-two of the 30 individual stressors examined in this study were significantly related to turnover intentions.
9. Based on a review of mean individual stressor scores, TCES employees appeared to experience each stressor in a unique manner, generally based on whether they were male or female, professional or support employees, or by age, the education level they had attained, or length of service with the organization.
10. Mean scores derived from the *Job Satisfaction Scale* and the *Organizational Commitment Questionnaire* revealed that TCES employees had moderately high levels of job satisfaction and organizational commitment.
11. Job satisfaction and organizational commitment appeared to play a significant role in employee decisions concerning whether to stay with or to leave an organization. It appears that employees who were more satisfied with their

jobs, and/or were more committed to the organization, had lower intentions of leaving the organization.

12. While employees with high job satisfaction and/or organizational commitment scores still reported experiencing relatively high levels of work-related stress, they had lower levels of turnover intentions than employees with lower job satisfaction and organizational commitment scores.
13. From the findings in this study, one could infer that job satisfaction and organizational commitment intervene in the job stress-turnover process, possibly serving as mediators or moderators of the process.
14. Perceived job stress appeared to be significantly influenced by the education level attained by employees. Job stress levels increased as employees obtained more education. Employees with Master's or Ph.D. degrees reported experiencing the largest amounts of job pressure and lack of organizational support.
15. Job classification appeared to play an important role in how work-related stress was experienced and perceived. Professional employees reported significantly higher levels of job pressure and lack of support than support employees. However, the data suggested that job classification was not significant in determining whether to leave or stay with the organization.
16. Employee turnover intentions appeared to be significantly influenced by age and education. Younger employees were more likely to leave the organization, while those 51 years or older were most likely to stay with the organization. Those with associate's or bachelor's degrees were most likely

to leave the organization, while those with high school educations were least likely to leave.

17. Length of employee service with TCES was found to significantly influence turnover intentions. Employees with 5 years or less service were most likely to leave the organization, while those who had worked with TCES 21 years or more were least likely to leave.

Discussion

A discussion of the study's major findings is presented in this section. Perspectives from previous research findings relevant to the examination of job stress and turnover intentions are also included where appropriate.

Job Stress and Turnover Intentions

Pearson *r* correlations revealed a significant and positive relationship between job stress index scores and turnover intentions of TCES employees, as well as between turnover intentions and the two dimensions of job stress, job pressure and lack of organizational support. These results indicated that turnover intentions of TCES employees increased as job stress increased. This finding is consistent with results obtained by several researchers, including Jackson and Schuler (1985) and Gupta and Beehr (1979). As early as 1969, Lofquist and Dawis contended that increasing levels of work-related tension or stress could lead to a decision to quit. Skyrme (1993) examined work stressors and intent to quit among 158 first-line supervisors, and found that work stressors were positively associated with the intent to quit. A study by Sheriden and Abelson (1983) determined that when individuals perceived job stress exceeded a threshold limit, they quit their jobs. Slate and Vogel (1997) reported that job stress was

significantly related to turnover intentions in a large sample of southern correctional officers, while Mitchell et al. (2000) determined that job stress was one of the primary causes of turnover in their study of juvenile correction officers. While these and other researchers have posited the existence of a positive relationship between job stress and turnover, most turnover theoretical models found in the early literature ignored the role of job stress on turnover behaviors. This perspective was likely precipitated by the lack of tested theoretical models and the role intervening variables have been found to play in the job stress-turnover relationship, making the establishment of causal effects difficult.

Intent to turnover scores for TCES employees were low, with a mean score of 2.366, based on a 7-point Likert scale (SD = 1.52) with 7 indicating greater turnvover intent. This finding, indicating that TCES employees in general had low intentions to leave their jobs, was consistent with Rossano's 1985 investigation of turnover intentions of Ohio Cooperative Extension agents, who also reported low intent to turnover scores for Extension agents.

These findings also generally support the most recent measures of voluntary turnover computed by UTAES, when, in 2001, turnover for exempt employees was determined to be slightly more than 7%. In previous years, turnover rates ranged from a low of 5.4% in 1994 to a high of 10% in 1999 (H. Byrd, personal communication, January 10, 2002). In 2000, a turnover rate of 9% suggested fluctuating retention rates that were likely influenced by a variety of factors, such as economic unstability, unemployment rates, organizational change, as well as relatively high perceived levels of lack of organizational support reported in this study.

In the private sector during 2000, the typical business or firm had a turnover rate of 19%, while the federal government had a turnover rate of 6%, according to Office of Personnel Management estimates (Friel, 2001). The average length of service for employees in the private sector was 3.5 years, while federal workers averaged 17.5 years of service (Friel). When compared with these statistics, UTAES exhibited moderately higher turnover rates (3%-4%) in recent years than federal agencies in general. Rates continued to be well below those experienced by the private sector, however. The documented cost of employee turnover to the organization includes a drain of institutional knowledge, lost productivity while positions are vacant, and additional expenses for recruitment, hiring, and training new employees. Given these costs, continued monitoring of turnover rates might prove worthwhile. The rate of employee turnover continues to be a key measure of human resources success for any organization.

An analysis of voluntary turnover by employee age and/or length of service with TCES would provide valuable insight into who is leaving the organization. Unfortunately, this information was not available at the time this study was conducted. However, this researcher contends that the method for computing voluntary turnover, which involves identifying the number of all exempt employees at the beginning of the year and subtracting the number who voluntarily leave during the year to determine attrition rates, may mask the true nature of relatively high voluntary turnover rates that would be found for exempt employees who had worked less than five years. In addition, no records of non-exempt employee turnover were available for comparison.

Another approach for computing voluntary turnover involves identifying how many new employees stay with the organization after a period of two years (Friel, 2001).

This approach focuses on measuring turnover where the highest levels are usually noted and could provide valuable data for the organization.

The results of these statistical analyses indicated that job stress and its two dimensions, job pressure and lack of organizational support, may be factors in an employee's decision to leave the organization. Slightly more than 11% of the variance in the turnover intentions construct was explained by job pressure and lack of organizational support index scores. These findings support the contention expressed in earlier studies that turnover intentions appear to be a multi-faceted construct, with work-related stress possibly serving as one of many influencing factors (Elangovan, 2001; Maertz, 1998).

The index scores utilized in examining the nature of job stress in this study incorporated both frequency and severity scores, as outlined by Spielberger and Vagg (1999) in the *JSS*. Ratings of the perceived severity of specific work stressors provided data about the impact of that particular stressor on the worker's emotional state at that particular moment. Information on the frequency of occurrence of a particular stressor provided data on how often the employee responded to that stressor. According to Vagg and Spielberger (1998), these measures appeared to be equally important in evaluating occupational stress. Both need to be evaluated and considered to gain a more complete understanding of the stress experienced by a specific group or in a particular job. This measure likely provides a fairly comprehensive perspective on the nature of work-related stress and how it was perceived by TCES employees. However, the measure does not take into account other factors that may influence or even mitigate an employee's response to job stress, such as coping skills and social support (Cooper, Sloan, & Williams, 1988; Kobasa, 1979; Lazarus & Folkman, 1984).

The frequency with which overall job stress (index scores) and lack of organizational support (index scores) occurred was significantly and positively related to turnover intentions of TCES employees, while the frequency with which job pressure (the second job stress dimension) occurred was not significantly associated with turnover intentions. Statistical analyses revealed that only the frequency of lack of organizational support appeared to be significant in the turnover process. It explained 9.3% of the variance in turnover intentions. Job pressure frequency made no significant contribution, probably due to the coping strategies employed by workers, the level of decision latitude employees may have over issues related to the job pressure construct, or a combination of the two.

The frequency of occurrence of work-related stress has been hypothesized by numerous researchers (Cooper et al., 1988; Kobasa, 1979; Lazarus & Folkman, 1984) to be influenced by a number of factors, such as coping skills, hardiness, social support, and supervisor support. While these results indicate these factors may play a significant role in the stress appraisal process, an examination of these factors and their impact on TCES employees' decision to turnover was beyond the scope of this study. However, future studies are needed to explore the relationship of these variables with the job stress-turnover intentions relationship.

The severity of overall job stress and lack of organizational support was found to be significantly and positively correlated with turnover intentions, while job pressure severity was not. It should be noted, however, that regression analysis revealed that overall job stress severity (2.5%) and lack of organizational support severity (4.5%) alone accounted for statistically significant but relatively small portions of the variance in

turnover intentions of TCES employees. This disclosure indicates that while TCES employees did experience significant work-related stress, the severity or intensity of the perceived stress alone likely played only a limited role in an employee's decision to leave the organization.

It should be noted that Spielberger and Vagg (1999) utilized index scores in the *JSS* so that frequency of occurrence as well as the severity or intensity of the stressor would be considered simultaneously, as influenced by the Transactional Process Model (Lazarus & Folkman, 1984). This model of job stress focused on how individuals uniquely experience stress. Therefore, index scores for job pressure and lack of organizational support should provide a relatively comprehensive picture of the role job stress plays in an employee's decision to leave or stay. It is also important to note that stressors perceived as very severe and that also occur with high frequency are more likely to produce greater levels of stress. Failure to take into account how often a particular stressor is experienced could overestimate the effects of highly stressful events that occur infrequently while underestimating the impact of less stressful events that occur more frequently (Vagg & Spielberger, 1998).

When the individual stressors utilized in the *JSS* were examined, 22 of the 30 stressors had significant and positive correlations with turnover intentions. This statistic indicates that a variety of stressors experienced by TCES employees played a role in determining whether an employee planned to leave the organization, illustrating the complexity of the job stress and intent to turnover constructs.

An examination of the individual stressors associated with turnover intentions indicated they were perceived and experienced differently by employees, resulting in

unique outcomes for employee groups. Commonalities were noted among employee groups when mean scores for specific individual stressors were examined. Earlier research (Vagg & Spielberger, 1998) indicated that mean scores derived from scales and subscales, while useful in determining the general nature of job stress as perceived by employee groups, often served to mask specific sources of stress for these groups. Consequently, the fact that a particular set of stressors could be experienced differently by support and professional employees might be lost in the generalization of the study outcomes. This premise suggests the importance of evaluating relationships between individual stressors and employee groups to identify specific sources of workplace stress.

Based on the premise outlined above, the researcher first examined more closely the relationship between the individual stressors and turnover intentions, resulting in 22 of the 30 stressors being significantly correlated with turnover intentions. Following additional analyses, 8 of the 15 stressors found to have the strongest correlations with turnover intentions were items included in the *lack of organizational support* subscale. These stressors included:

1. Lack of opportunity for advancement
2. Fellow workers not doing their job
3. Inadequate support by supervisor
4. Lack of recognition for good work
5. Difficulty getting along with supervisor
6. Experiencing negative attitudes toward organization
7. Poor or inadequate supervision
8. Poorly motivated coworkers

This finding further clarifies why *lack of organizational support* was determined to account for a significant amount of the variance in the turnover intentions construct, while *job pressure* did not. Only two stressors highly correlated with turnover intentions, *performing tasks not in job description* and *assignment of increased responsibility*, were items included on the *job pressure* subscale. These results also more clearly identify specific stressors that may contribute to an employee deciding to leave the organization. From the perspective of Karasek's (1979) Demand-Control Theory, employees likely have more decision latitude when it comes to pressures associated with their jobs than they do with organizational support issues, thus resulting in stressors associated with organizational support having a greater impact on employees. Another perspective is that while scores were higher for stressors resulting from job pressure, they were moderated by coping skills, social support, or personality type, resulting in less impact on the employee.

Role of Attitudinal Variables in the Job Stress-Turnover Intentions Relationship

The attitudinal variable job satisfaction was found to be significantly and negatively associated with turnover intentions, as well as with job stress, job pressure, and lack of organizational support. As job satisfaction scores decreased, turnover intention scores increased. As job stress scores increased, job satisfaction scores decreased.

It should be noted that job satisfaction was significantly and negatively correlated with job stress and lack of organizational support severity, as well as with job stress, job pressure, and lack of organizational support frequency. Only scores from the job pressure

severity subscale were not significantly associated with job satisfaction. These findings suggest that the frequency of occurrence of perceived job stress, job pressure, or lack of organizational support, as well as the severity of perceived lack of organizational support, may be significant determinants in employee satisfaction (Turnage & Spielberger, 1991).

Job satisfaction was found to be relatively high among TCES employees. This finding was consistent with Poling's (1990) study of job satisfaction of faculty members at a land-grant university, which indicated that faculty members had relatively high levels of job satisfaction.

The highest rated item on the job satisfaction scale was the negatively worded item *in general, I don't like my job,* with a mean score of 6.021, based on reverse scoring to account for the negatively worded item. This finding indicated that TCES employees did, in fact, like their particular jobs. The lowest rated item was *all in all I am satisfied with my job,* with a mean score of 5.452. While this is a considerably high score, it did indicate that everyone who reported liking their job did not experience the same high levels of job satisfaction.

In the research literature, attitudinal variables such as job satisfaction have been identified as potential moderators, pre-cursors, mediators, or intervening variables in the turnover process (Camp, 1994; Chang, 1999; Moore, 1998). Moore and Ivancevich and Matteson (1980) also found evidence these attitudinal variables may be negatively related to the perception of organizational stress. Mitchell et al. (2000) reported that job satisfaction and stress displayed the strongest relationship of all organizational level variables to turnover intentions in their study of juvenile corrections officers.

Findings in this study indicated that job satisfaction played a significant role when TCES employees considered whether to stay with or leave the organization. While both were significant, Pearson *r* correlations between job satisfaction and turnover intentions ($r = -.531, p < .01$) were higher than those between turnover intentions and job stress ($r = .302, p < .01$), job pressure ($r = .136, p < .05$), or lack of organizational support ($r = .341, p < .01$). Regression analyses revealed that job stress accounted for 9.1% of the variance in turnover intentions (F, (1,329, $p < .001$, R-Square = .091), while job pressure and lack of organizational support, when entered into the model together, accounted for 11.1% (F (2,327) = 20.344, $p < .001$, R-Square = .111). In comparison, job satisfaction contributed 28.2% of the variance in turnover intentions when regressed on turnover intentions (F (1,330) = 129.804, $p = .001$, R-Square = .282). When job satisfaction and job stress index scores were entered into the regression model simultaneously, 29.1% of the variance was accounted for in turnover intentions (F (2,328) = 67.265, $p < .012$, R-Square = .291). A similar finding (29.2%) was noted when job pressure and lack of organizational support scores were entered into the regression model with job satisfaction (F (3,326) = 44.835, $p < .02$, R-Square = .292). These findings indicate that job satisfaction influences the impact of job stress, job pressure, and lack of organizational support on turnover intentions.

These results suggest that employees who are most satisfied with their jobs find ways to deal with job-related stress. When an employee is less satisfied with his or her job, work-related stress, and in particular lack of organizational support, played a larger role in the decision to remain with or to leave the organization.

Whether job satisfaction served as a mediator or moderator, as suggested by Bedeian and Armenakis (1981), Bluedorn (1982), and Mobley (1977), was not clear in this study. It was clear, however, that job satisfaction appeared to serve as an intervening variable in the job stress-turnover intentions relationship, perhaps mitigating the decision to stay with the organization. Elangovan's (2001) more recent study provided a measure of clarification. His LISREL examination of five stress-turnover intentions models revealed strong support for a stress-job satisfaction causal link and determined that the primary effect of stress was on job satisfaction rather than turnover intentions. These results concurred with the work of Bedeian and Armenakis and suggest that models of stress that do not include job satisfaction as a dependent variable are incomplete. As Poling (1990) noted in his study of faculty at a land-grant university, the consistent negative relationship between job satisfaction and turnover intentions outlines the importance of job satisfaction to an organization in the struggle to retain valuable employees.

Organizational commitment has been determined to be a relatively stable attitude over time, as compared with other attitudinal variables such as job satisfaction (Porter et al., 1974). The role of organizational commitment has been hypothesized as intervening in the job stress-turnover intentions relationship by several investigators (Bedian et al., 1991; Chang, 1996; Elangovan, 2001; Huselid & Day, 1991).

Findings in this study indicated that organizational commitment did appear to play the role of an intervening variable, similar to that of job satisfaction, in the job stress-turnover intentions relationship. However, organizational commitment did not appear to play quite as significant a role as job satisfaction, based on statistical analyses.

Pearson *r* correlations revealed a significant negative relationship between organizational commitment and turnover intentions ($r = -.505, p < .01$). Significant negative correlations also were found between organizational commitment and job stress index ($r = -.294, p < .01$), job pressure index ($r = -.118, p < .05$), and lack of organizational support index ($r = -.376, p < .01$).

The first in a series of linear regression analyses revealed that when organizational commitment alone was regressed on turnover intentions, it accounted for 25.5% of the variance in turnover intentions ($F(1,330) = 113.195, p < .001$, R-Square = .255). When job stress was entered into the model simultaneously with organizational commitment, 27.8% of the variance was contributed by the two variables ($F(2,328) = 63.048, p < .002$, R-Square = .278). Considering job pressure and lack of organizational support as separate constructs of job stress and entering them simultaneously with organizational commitment resulted in only a slight increase (0.1%) in the percentage of variance in turnover intentions contributed by the model ($F(3, 326) = 41.968, p < .005$, R-Square = .279).

These finding indicated that organizational commitment played a significant role in the job stress-turnover intentions relationship. Findings suggested that the more committed an employee was to TCES, the less likely he or she was to consider leaving the organization. High levels of organizational commitment, therefore, appeared to counteract the impact of negative issues, such as work-related stress, as has been reported in earlier research (Chang, 1996; Huselid & Day, 1991). Elangovan's (2001) study examining 155 graduate students in a large public university found that commitment directly affected turnover intentions. Elangovan contended that interventions aimed at

reducing work-related stress should focus on enhancing organizational commitment rather than on job-related issues such as salary.

Organizational commitment scores for TCES employees were found to be relatively high although not as high as job satisfaction scores. Mean TCES scores for the organizational commitment scale were 5.068 (SD =1.020), based on a 7-point Likert scale, where 7 represents greater commitment to the organization. The item receiving the highest rating (5.774, SD = 1.129) was *I am willing to put a great deal of effort beyond that normally expected in order to help this organization succeed.* The item receiving the lowest score (3.414, SD = 1.657) was *I would accept almost any type of job assignment in order to keep working for this organization.*

As noted earlier in this study, organizational re-structuring occurred in the months immediately preceding data collection for this study, resulting in the elimination of a number of unfilled professional positions and the relocation of several other employees. Research has shown that the possibility of layoffs diminish employee commitment to an organization (Mollica & DeWitt, 2000; Morrison & Robinson, 1997). However, when the threat of layoff passes, employees who remain with the organization become even more attached (Gaertner & Nollen, 1989). It is conceivable these factors may have influenced organizational commitment scores for TCES employees.

Pearson r correlations between job satisfaction and organizational commitment determined that these two attitudinal variables were significantly and positively related (r = .619, $p < .01$). When both were entered simultaneously into the regression model and regressed on turnover intentions, 33.3% of the variance in turnover intentions was accounted for (F (2,329) = 82.040, $p < .001$, R-Square = .333). These results indicated

these two attitudinal variables accounted for more of the variation in turnover intentions when considered together than either contributed as a separate entity. This finding suggests a synergistic relationship between organizational commitment and job satisfaction that may significantly influence employee turnover decisions.

Several theoretical perspectives exist regarding the nature of the job satisfaction and organizational commitment relationship. Price and Mueller (1986) and Elangovan (2001) contended that organizational commitment mediates the relationship between job satisfaction and turnover intentions, with job satisfaction only having an indirect effect on turnover intentions. Porter et al. (1974) proposed that organizational commitment and job satisfaction contributes to turnover intentions in unique ways, asserting the two variables are related, but also distinctly different constructs. This model did not suggest a causal direction or eliminate the possibility of reciprocal influences between organizational commitment and job satisfaction. Support for this hypothesis has been exhibited in several investigations (Cotton & Tuttle, 1986; Hom & Griffeth, 1991; Mathieu, 1991).

This research supported the latter model, with both variables making unique contributions to the turnover construct as indicated by the series of regression models discussed earlier in this chapter. However, analyses also suggest some sort of reciprocal relationship between job satisfaction and turnover intentions. The relationship between the two variables remained unclear.

The Turnover Intentions Construct

Stepwise multiple regression was utilized to determine what combination of variables considered in this study explained the largest percentage of variance in the turnover intentions construct. The final model accounted for 39.5% of turnover

intentions' variance (F(5,325) = 42.49, $p < .05$, R-Square = .395). Variables included in the model were (a) lack of organizational support ($p < .05$), (b) job satisfaction ($p <$ .001), (c) organizational commitment ($p < .001$), (d) gender ($p < .05$), and (e) length of service with TCES ($p < .001$).

The final model supported other findings in this study which indicated that lack of organizational support influenced employee turnover intentions to a greater extent than did job pressure or overall job stress. Fang and Baba's (1993) work validated the role of work-related stress in turnover cogntition, and it also supported earlier work that contended that job stress could be considered a significant predictor of turnover intentions. Their study results were somewhat challenged by Camp's (1994) findings that job stress played only a limited role, explaining a relatively small proportion of variance in the intention to quit, as was the case in this investigation.

Previous research has illustrated the complex nature of the turnover intentions construct, with often 30% or less of the variation in the construct explained by hypothesized models (Moore, 1998). While all variables included in the conceptual model did not make significant contributions to the final regression model, results indicated that the final combination of variables considered in this study contributed 39.5% of the variance in turnover intentions. The greatest contribution appeared to be made by job satisfaction. A single dimension of job stress, *lack of organizational support*, contributed to the final model. It contributed less, however, when considered in the absence of job satisfaction or organizational commitment. This result indicates the importance of job satisfaction and organizational commitment as employees make

decisions concerning whether to leave an organization. It also supports the contention that job stress alone plays a limited role in the turnover process.

Job Stress and Demographic Variables

Earlier research supported the hypothesis that personal characteristics moderated the relationship between job stress and employee health and behaviors (House, 1974; Kahn et al., 1964). In recent years, mixed results have been reported for the influence of demographic characteristics on work-related stress.

In this study, significant differences in *job pressure* and *lack of organizational* support scores were found only among education levels ($p < .05$). No significant differences were noted when job stress scores were examined by gender, ethnicity, or age.

Further analysis indicated that statistically significant differences existed only between employees who had attained a high school education and those with either an M.S. or a Ph.D. degree ($p < .05$). Nevertheless, a trend was noted, indicating that as education levels rose, both *job pressure* and *lack of organizational support* scores also rose. It should also be noted that *lack of organizational support* scores were consistently lower than *job pressure scores* for employees in all education groups. The large standard deviations for mean job stress (10.477), job pressure (13.889), and lack of organizational support (14.360) scores computed earlier in this study illustrated the great variation that existed among employee scores, suggesting that each of the dimensions of job stress were experienced and perceived differently by employees. These analyses suggest that education could be one of the factors influencing that perception.

There is no clear indication from the literature whether or not job stress was experienced differently by males and females. While this researcher found no significant differences in overall job stress index scores, a different picture emerged when frequency of occurrence of stress and individual stressors were examined in relation to gender.

Significant differences were found in the frequency of occurrence of job pressure ($p < .05$) between males and females. Males reported significantly more occurrences than females. However, it should be noted that job pressure was not found to be a significant factor in the turnover process. It is likely, therefore, that while males perceived they experience more frequent occurrences of job pressure, it was not a determining factor when considering whether to stay with or leave the organization. Also, since most males in this study fell in the professional job classification, the decision latitude that accompanied their professional positions could likely account for male employees finding ways to cope with and address the pressures associated with their work. It is also likely that perceived levels of job satisfaction and organizational commitment played a role in determining how the frequency of job pressure was ultimately perceived.

When the severity of job pressure and lack of organizational support scores were examined by gender, no significant differences were found. This finding further supports the contention that the pressures of the job, regardless of their nature, appear to be mitigated by job satisfaction, organizational commitment, coping skills, or other unknown factors when it comes to making decisions concerning voluntary turnover.

Of the 15 individual stressors found to be significantly associated with turnover intentions, 5 were determined to show a significant relationship with gender. These included (a) *working overtime,* (b) *experiencing negative attitudes toward the*

organization, (c) *insufficient personnel to handle an assignment*, (d) *competition for advancement,* and (e) *conflicts with other departments.* In reviewing mean scores for each of the stressors significantly associated with gender, it was determined that job stress scores for the 5 stressors were higher for males than for females. A review of the remaining scores indicated that only 3 out of 15 reported higher scores for females: (a) *lack of opportunity for advancement,* (b) *difficulty getting along with supervisor,* and (c) *inadequate salary.* While there was no statistical significance attached to this finding, it provided information of practical significance to the organization in understanding issues that could negatively impact male and female employees.

Several factors might have influenced the outcome of this analysis. The makeup of the overall study population and sample, in which the support strata consisted of 95% females and the professional strata consisted of 46% females, was disproportionately female. The largest portion of the female study participants fell in the support classification, who have been shown in this and other studies (Spielberger & Reheiser,1994) to experience specific stressors differently than employees (male and female) in other job classifications. It also is likely that other factors, such as coping skills, levels of job satisfaction, and levels of organizational commitment played roles in moderating the effects of job-related stress in unique ways for males and females in each of the job classifications. One additional factor to consider is the effect of recent organizational restructuring on each employee group and how male and female employees likely perceived the stressors associated with the resulting change in uniquely personal ways.

These findings concurred with the work of Spielberger and Reheiser (1994), which also used the *JSS* to examine gender issues in university and corporate settings. They concluded that men and women experienced similar overall levels of stress but identified several gender differences when individual stressors were examined. They pointed out that overall measures of stress may mask the existence of job stress for specific sectors of the organization.

Education level was also found to have a significant influence on how employees perceived the frequency of job pressure and lack of organizational support, while only the lack of organizational support dimension of job stress was significantly associated with its perceived severity. Scores for job pressure and lack of organizational support frequency and severity were highest for employees with master's or Ph.D. degrees, indicating that employees with more education perceived experiencing more occurrences of job pressure and lack of support, as well as more severe episodes of lack of support. However, it should be considered that the nature of the jobs held by professional and support employees may confound the effects of education in this instance. All employees with high school educations fell in the support group, while those with master's or Ph.D. degrees were professional employees; therefore, any significant differences found may not solely be attributed to the level of education attained. Further examination of these variables is needed to establish the nature of these findings.

Ethnicity was also determined to significantly influence the perceived frequency of occurrence of job pressure ($p < .05$). Non-minority employees experienced significantly more occurrences of job pressure than minority employees; no differences were noted between lack of support scores. These results, however, should be viewed

with caution due to the relatively small number of minority employees (38) included in this study. Additional research with more equal sample sizes on specific stressors impacting minority and non-minority employees could likely provide additional insight into how perceived job pressure is influenced by ethnicity.

Job Stress and Job-related Variables

A series of MANOVAs was utilized to determine whether or not significant differences existed among employees when considered by job-related characteristics; only job classification and job assignment were found to exhibit significant differences. Further investigation of the job classification variable indicated significant differences for both job pressure (p = .001) and lack of organizational support (p =.025). A review of the means for the two job classifications, professional and support, revealed that mean scores for the professional group were significantly higher than the support group for job pressure as well as for lack of organizational support. Job pressure scores were higher for both groups than was lack of organizational support scores.

These findings were consistent with those reported by Turnage and Spielberger (1991), who found that employees in different job classifications experienced stress differently and in different amounts. Significant differences were noted between employees working in management or professional positions and those working in clerical or maintenance positions. These researchers determined that both groups attributed greater intensity (severity) to stressors that reflected lack of organizational support than they did to job pressures. Employees in management positions indicated more frequently experiencing job pressure than did other professionals, yet also attributed less severity to the pressures than did other groups.

Studies in the turnover and stress literature supported the hypothesis that the type of position held by an employee influenced how job stress was perceived, as well as their turnover intentions. Many theorists have related this phenomenon to issues of decision-control and authority, tenets of Karasek's *Demand-Control Model* of organizational stress (Karasek & Theorell, 1990). Employees with little control or authority to make decisions were more likely to experience higher levels of job stress and strain, as well as increased propensity to leave the organization (Johnsrud, Sagaria, & Heck, 1996).

A case can be made, however, that the results of this study do not generally support the latter contention, if the assumption is made that professional employees possess greater decision latitude and authority than support employees. A review of mean TCES scores for job stress, job pressure, and lack of organizational support all revealed significantly higher scores for professional employees than for support employees. Employees with professional positions have greater latitude over their work schedules, decision-making, and work tasks than do support employees. This finding, therefore, failed to support Karasek's theoretical perspective.

However, another perspective based on Karasek's work would propose these results were grounded in the nature of the work itself, and that employees in both job classifications had more decision latitude over issues related to job pressure. Therefore, greater intensity was attributed by both groups to issues related to lack of organizational support, resulting in higher job pressure scores; yet, lack of support scores were more impactful concerning turnover decisions of employees.

It is likely these results were influenced by several factors that were in play at the time the questionnaires were administered: (a) the unique and changing nature of all jobs

within TCES, (b) the effect of changes brought about by recent organizational re-structuring and downsizing that impacted only professional employees, possibly resulting in feelings of loss of control (c) increased demand for systemic program accountability of professional employees, (d) perceived job insecurity related to budgetary constraints, and (e) the large number of professional employees working at the county level, which many may perceive as a position with less decision latitude than positions at the district or state levels.

An examination of individual stressors significantly associated with job classification revealed that higher scores for support employees were noted for the stressors *lack of opportunity for advancement* and *inadequate salary.* These results are identical to Turnage and Spielberger's (1991) conclusions when they examined how clerical employees perceived individual stressors. From a practical perspective, these findings were not surprising, considering that most employees in this group had attained high school educations or one to two years of advanced education, which limited the scope of job opportunities within a university setting. In addition, there was no defined career path for advancement within TCES for support employees. Advancement often happened by serendipitous opportunity, when positions became available in a location that was workable for a particular employee. This was especially true for support employees working at the county level. If the employee met the basic requirements for an available position, the opportunity to advance likely became a reality.

The second stressor, *inadequate salary*, has been an issue within the university as a whole, as well as within TCES, for numerous years. While this stressor could be considered an issue for all employee groups, the group most likely experiencing the

greatest amount of stress attributed to this particular stressor was the group with the lowest payscale, which was the support group.

Nine other stressors significantly related to job classification indicated higher scores for professional employees. These findings support the theory that employees experience and perceive stress in unique ways and that generalizations should be made with caution when employee groups are examined.

Another perspective could assert that, while these findings are generally supported by the work of Turnage and Spielberger (1991), the results were unique to employees in the Extension organization. To clarify these issues, additional research focusing on Extension employees is needed to examine the relationship of outcomes obtained when using different instruments and approaches to measure the same variable, in this case, job stress.

While significant differences were found among job assignment groups, a follow-up analysis of variance indicated no significant differences among any of the groups. This finding may well be explained by a number of factors, including (a) the wide variety of job assignments in TCES, (b) the way job assignments were grouped for statistical analyses, and (c) the great variation that existed in assignments from one location to another. It should also be noted that job assignments were only examined for professional employees, since there was a wide array of assignments in this job classification that could possibly influence the amount of perceived stress experienced. Clerical or support positions, on the other hand, share more common elements, regardless of the level or office location.

However, a review of mean scores by job assignment provides an interesting finding. While job pressure scores were consistently higher than were lack of support scores for employees working in all job assignments (Figure 7), job pressure scores were lowest for administrators and professionals working at the district and state levels and highest for county directors. Paradoxically, lack of organizational support scores were lowest for county directors and highest for district and state level administrators and professionals. County employees with one or more than one work assignment fell in between, creating a general trend for both measures.

One explanation for high job pressure scores for county directors could be the nature of their assignments that include dual roles of administrator and educator. In addition, county directors have responsibility for their entire county Extension unit, including personnel, program, and facilities. It could be conjectured that county directors serve as a protective shield for their staff from many of the stresses associated with Extension work, thus accounting for their relatively high job pressure scores.

The low job pressure scores for employees at the district and state levels could be attributed to the decision latitude they possess in controlling program direction, schedules, meetings, and assignments. The issue of high *lack of organizational support* scores at the district and state levels could theoretically be due to factors such as a disconnect related to the departmental structures of UTAES and TSU-CEP, limited contact with and/or feedback from state administrators, or policies and procedures perceived to be irrelevant, confining, or inhibiting to the program development process. These issues could result in the development of negative attitudes toward the organization, which was one stressor found to have significant correlation with turnover

intentions. In turn, negative attitudes toward the organization have been shown in earlier research to significantly influence an employee's commitment to the organization. According to Elangovan's (2001) study, organizational commitment was the key determination in whether an employee decided to stay with an organization or to leave. In contrast, the relatively low lack of organizational support scores exhibited by county directors could be attributed to their continuous personal contact with district directors and with other administrators, as well as the local support county directors receive, resulting in greater feelings of autonomy, control, and decision latitude.

A review of the stress literature indicated little evidence or support for length of service as a significant contributor to the organizational stress construct, which was in line with the findings of this study. However, some studies considered length of employment in current position as a significant contributor to the stress construct. The job satisfaction/turnover literature found that employees who experienced relatively low job satisfaction tended to change work positions within the organization (Dole & Schroeder, 1999). It could be hypothesized that employees with shorter service in their current positions may experience stress in significantly different ways than those with longer terms of employment, possibly resulting in lower job satisfaction and increased turnover intentions (Peters & O'Connor, 1980). However, the length of service in current position was not determined to have a significant effect in this study.

Turnover Intentions and Demographic Variables

According to the turnover literature, the typical "leaver" was likely to be young, educated, short-tenured, and have another job in hand (Bluedorn, 1982; Hom & Griffeth, 1995). While the knowledge of whether or not employees have "another job in hand" was

beyond the scope of this investigation, this portion of the study supported the contention that TCES employees who were younger and had higher education degrees were more likely to leave the organization. In this investigation, significant differences in turnover intentions scores were found among age and education groups ($p < .05$). No significant differences were noted for ethnicity or gender.

As age increased, turnover intentions decreased. Further analysis revealed that significant differences existed only between the 40 years or younger group and the 51 years or older group ($p < .05$). This result is consistent with a synthesis of early turnover literature conducted by Mobley (1982), which indicated that empirical evidence generally supported a strong negative relationship between age and turnover, with younger workers having the highest turnover rates. These findings were corroborated in more recent studies by Camp (1994) and by Mitchell et al. (2000).

A review of the mean turnover intention scores of employees by education groups indicated that employees with associate's or bachelor's degrees reported the highest turnover intention scores. The lowest turnover intentions scores are reported by employees with high school educations. Post hoc analysis indicated that significant differences were found between those with high school educations and those with associates or bachelor's degrees, as well as those with master's or Ph.D. degrees. However, no significant differences were found between employees with associate's or bachelor's degrees and those with master's or Ph.D. degrees.

The outcomes of this analysis may have been influenced by inherent factors. All employees reporting a high school education as the highest level attained were classified as support employees, while employees reporting a master's or a Ph.D. degree as the

highest level attained were generally classified as professional employees. The employee group who attained associate's or bachelor's degree as their highest level of education consisted of employees from both classifications. Therefore, it is possible that job classification served to confound the outcomes of the education analysis. For example, support employees who obtained bachelor's degrees could pursue new career options with other organizations that provide increased salary and new challenges. In general, the degrees those support employees obtain while working as TCES employees did not prepare them to enter the professional ranks of TCES; therefore, they often explored their career options outside of TCES. This factor could be one explanation for why turnover intention scores were higher for employees with associate's or bachelor's degrees.

The findings of this analysis are generally supported by previous research. The literature suggested that more highly educated employees often were presented with more alternative employment opportunities, which could lead to increased turnover intentions. Other researchers posited that better-educated employees were more likely to become dissatisfied with the organization or its management, leading to increased turnover intentions (Cotton & Tuttle, 1986). An examination of the individual stressors found to be significantly related to turnover intentions supports the concept that issues such as *lack of opportunity for advancement*, *experiencing negative attitudes toward the organization*, *inadequate salary*, and *inadequate support by supervisor* can significantly influence an employee's decision to leave the organization. However, the specific influence of education on individual stressors was not examined in depth in this study.

It should also be noted that weak relationships between education and turnover have also been demonstrated. Meta-analytic support was found to be weak for the

assertion generally supported in the turnover literature that employees with higher levels of education were more likely to quit than employees with less education (Cotton & Tuttle, 1986; Hom & Griffeth, 1995). This perspective could support the finding that TCES employees with associate's or bachelor's degrees were most likely to leave the organization, rather than those with high school educations.

Turnover Intentions and Job-related Variables

Turnover intentions scores were examined by job-related variables, and significant differences were found only for length of service. Mean turnover intention scores by length of service with TCES indicated that as the years of service with the organization increased, turnover intentions decreased. Post hoc analysis pointed out that significant differences existed only between employees with 5 years or less service and employees with 21 years or more service ($p < .05$).

These findings concur with the work of Camp (1994), who found that employees with fewer years of service were more likely to leave their jobs than those with more years invested in the work organization, and with Mobley (1982), who reported that shorter-tenured employees consistently showed a higher turnover level. Mobley also contended that length of service was one of the best predictors of turnover and that turnover was determined to be significantly higher in the early years of employment with an organization.

While turnover intentions scores for TCES employees were generally considered to be low, employees with 5 years or less experience did exhibit the largest mean turnover intention scores (2.7); employees working 21 years or more reported mean scores of 2.0.

It has been generally accepted in the literature that any effect of job-related characteristics was occupation-specific. Therefore, Bamberger (1990) suggested that any generalization of findings across different work environments should be viewed with caution. Due to the unique qualities of the positions within TCES, this precautionary measure certainly applies to these job-related study findings.

Conclusions

Although no causal effects can be determined from this cross-sectional, descriptive, correlational investigation, general conclusions are drawn based on the statistical analyses utilized to address the research questions and test the hypotheses that guided this study. The sample was representative of the population; therefore reliabilities of the instruments used in this study were valid. Keeping in mind the limitations and delimitations outlined in Chapter III, the researcher concluded the following:

1. Job stress in general appears to play a small but significant role in an employee's decision to leave the organization.
2. *Lack of organizational support* issues appear to have more influence on employee turnover intentions than *job pressure*.
3. *Job pressure index* scores were higher than *lack of organizational support index* scores for both employee classifications. Paradoxically, *lack of organizational support severity* scores for both employee classifications were higher than *job pressure severity* scores, indicating that the severity of a stressor may play a dynamic role in the turnover intentions process.
4. Employees experience specific stressors uniquely, generally based on their job classification, gender, age, education level, and length of service with TCES.

Additional research is needed to examine the impact of specific workplace stressors that may be having a negative impact on certain employee groups.

5. The level of education appeared to significantly influence job pressure and lack of organizational support scores. The more education an employee attained, the higher the levels of reported *job pressure* and *lack of organizational support*. Whether this finding is a function explicitly of education or of an interaction of education and job assignment or position within the organization is not clear.
6. Employees who were younger, had fewer years of service with the organization, and had attained associate's or bachelor's degrees were most likely to intend to leave the organization. Employees with high school educations were least likely to leave.
7. Professional employees in TCES appeared to experience higher levels of *job pressure* and *lack of organizational support* than did support employees. However, no significant differences were noted between turnover intentions for the two groups.
8. Other factors, such as the intervening variables job satisfaction and organizational commitment, or possibly coping skills or social support, appear to mitigate the effects of *job pressure* on employees' decisions to leave the organization. These variables did not apparently play the same role in the *lack of organizational support* and turnover intentions relationship.
9. Employees who were highly satisfied with their jobs appeared to be less likely to want to leave the organization if they experienced work-related stress than were employees with lower levels of job satisfaction.

10. Employees who were highly committed to the organization appeared to be less likely to want to leave the organization if they experienced work-related stress than employees with lower levels of organizational commitment.
11. Employees who were highly satisfied with their jobs and highly committed to the organization appeared to be least likely to want to leave the organization when exposed to work-related stress.
12. The decision to leave an organization is multi-faceted; lack of organizational support, job satisfaction, organizational commitment, gender, and length of service with TCES accounted for 39.5% of the variance in the turnover intentions construct in this study. This finding indicates that other unknown factors contribute the remaining 60% to the decision to leave an organization.
13. Employees' perceived levels of job satisfaction and organizational commitment play a larger role in the decision to stay with or leave an organization than does job stress or any of its dimensions.

Implications

Extension is an integral part of the land-grant university system in Tennessee and across the country. The organization is, paradoxically, enhanced and inhibited by its association with higher education. It is enhanced by its close connection to academia and the research base that serves as the source for Extension programs, activities, and information that is made available to families and individuals in every county across the state. It is inhibited by the inherent constraints of an under-funded, bureaucratic, hierarchical organizational structure that continues to pervade institutes of higher learning, even in the 21st century. These limitations, along with organizational issues

explicitly related to Extension practices, policies, and procedures, provide ample reasons for TCES and other organizations interested in retaining their best and brightest employees to critically evaluate the findings of this investigation. Opportunities to minimize or limit potential sources of job stress that may exacerbate an outstanding employee's interest and desire in leaving the organization would be time and resources well spent, considering the cost of employee turnover to the organization. In addition, the findings of this study indicate that the roles job satisfaction and organizational commitment play in the turnover intentions process cannot be ignored. Employees who like their jobs and are committed to the organization are least likely to leave. Based on these assertions, the following statements have implications for addressing issues of importance to TCES employees, Extension's most valuable resource.

1. TCES employees who are young and who have few years of service are most likely to leave the organization. Consideration should be given to developing new employee orientation that focuses on specific job expectations and includes a period of time where the employee serves as a "trainee" or "intern" before being thrust into the real work situation with all its demands, pressures, and expectations. Employees who clearly understand what is expected of them may ultimately be more satisfied with their jobs.
2. A comprehensive mentoring program for newly employed workers could provide a support system that can serve to make the transition into a new job easier, thus minimizing some of the stresses associated with a new job. The program also provides opportunities for talented experienced employees to

develop new coaching and leadership skills, ultimately benefiting the employee as well as the organization.

3. The development of a career track for support and professional employees could lead to opportunities for advancement and increased responsibility while also providing a realistic plan for employee professional development and improvement. There are two advantages to this concept: (a) employees are more likely to remain with an organization where they can see they have an opportunity for growth, development, and promotion, and (b) the organization will benefit from employees with improved skills and the motivation to continue to seek improvement.
4. When an organization invests its resources into its human resource base, employees generally respond with reduced turnover and increased commitment to the organization. Salary issues, limited dollars to support important program efforts, perceptions of pay inequities, lack of adequate supervision, and limited employee recognition for a job well done may serve as sources of stress for certain employees. If the organization can address these issues in a way that employees know the organization has their best interests at heart, employees will likely respond with increased commitment.
5. While advancements have been made in reducing and eliminating paperwork and red tape, many policies, procedures, and processes inherent to the Extension structure tend to exacerbate job pressures by constraining and limiting the initiative, creativity, and innovation of talented employees. This may likely result in these employees leaving the organization, or worse yet,

"quitting on the job." Streamlining policies and procedures, providing employee autonomy, and supporting and recognizing innovation and creativity when appropriate could serve to minimize stressors associated with these issues.

6. When an employee leaves TCES, an "exit interview" is conducted by that employee's immediate supervisor. While the purpose of the interview is to determine the reason why the employee is leaving, this researcher contends that the real reasons for departure are often not provided in totality due to the generally close working relationship between the employee and his or her direct supervisor. It is suggested that TCES review their policies concerning exit interviews and consider having district directors or program leaders conduct exit interviews for county staff, while the state personnel office or their designate would conduct exit interviews for area, district, and state positions. This change could result in more consistent exit interviews that provide increased insight into why employees decide to leave TCES. A review of all exit interviews and development of a database to document the reasons for employees voluntarily leaving the organization could be an extremely useful tool for future studies on employee issues. It could also provide insight into issues that create work-related stress in the lives of employees, which may ultimately contribute to a worker's decision to leave the organization.
7. The development of an employee turnover database to track voluntary turnover rates for exempt as well as non-exempt employees could serve a useful purpose for TCES in examining retention as well as turnover rates. This

database could provide on-going insight into organizational personnel issues, including the ability to track when and where high levels of voluntary turnover are occurring. While turnover rates for TCES exempt employees were reported to range from 5 to 10 percent in recent years, this researcher contends that voluntary turnover rates were much higher for those employed less than 5 years. It is likely the overall percentages that could be calculated from available data mask high turnover rates for specific employee groups; and most certainly, the overall turnover percentage was reduced by the more than 32% of employees who have 21 years or more service with TCES. No records were available on the turnover rates for non-exempt employees when data for this study were collected.

8. The implementation of work-place programs designed to help employees strengthen coping skills, as well as reduce work-related stress, has been shown to pay dividends to the organization as well as the employee. These programs should be designed to address the work-related stresses that are inherent to the Extension organization and cannot be eliminated.
9. Efforts should be made to eliminate or minimize work-related stresses that can be positively impacted by administrative or organizational intervention by creating (a) an open, supportive work environment that encourages innovation, idea generation, and excellence; (b) open communication between departments, specialists, and other extension staff at all levels of the organization, as well as between administrators and employees across the organization; (c) increased county employee involvement in decisions

concerning programs; (d) increased utilization of program-focused teams involving county, district, and state staff working as a team; (e) clarity and communication of roles and expectations for employees across the organization; and (e) quality supervision at all levels of the organization.

Recommendations

Based on the findings and conclusions of this study and a review of the job stress and turnover literature, the following recommendations are outlined for consideration in future research projects.

1. Additional contemporary research on job stress and turnover within the Cooperative Extension System is needed. The changing workplace, organizational re-structuring, and the general change in the nature of work within the Extension system has precipitated the need for a new look at the system, what is creating stress for employees, and an examination of turnover patterns for groups of Extension employees.
2. It is suggested that a follow-up study replicating this investigation with TCES be conducted within 3 to 5 years to determine how the issues of recent organizational re-structuring and change may have influenced employee responses.
3. Replicating this study in extension organizations in other states could provide valuable data for extension administrators and human resource officers to utilize in developing and adapting "employee friendly" policies and procedures that will facilitate job satisfaction and organizational commitment, rather than facilitating increased job stress and turnover.

4. An in-depth examination of the severity and frequency of occurrence of the individual stressors from the *JSS* could provide important information for the organization. In some cases, specific interventions and educational programs could be developed and implemented based on these findings, ultimately resulting in reduced workplace stress.
5. An in-depth investigation of the 30 individual stressors from the *JSS* utilized in this study could reveal which stressors are specifically influenced by gender, age, education, ethnicity, length of service, and job classification. Previous research suggests that males and females experience stress differently, yet the differences are often masked by reporting overall stress scores. An examination of specific stressors could provide additional insight on this topic.
6. Replicating this investigation utilizing different statistical analyses could provide additional insight into the job stress-turnover intentions of TCES employees, as well as serve to validate or refute the results of this study. Using structural equation modeling and path analysis to examine the theoretical model on which this study was designed would clarify the nature of all relationships that exist among the variables of interest.
7. Additional research is needed to identify and explore coping skills, social support, and other strategies that extension employees utilize to manage and minimize work-related stress.
8. An investigation on the resiliency and the hardiness of extension employees in relation to job stress could provide useful information for human resource personnel as they make hiring and placement decisions.

9. Examining whether extension employees are burned out or are engaged (the antithesis of burnout) and how job stress impacts the process could provide useful information for the job stress and burnout literature.
10. Previous research suggests that stress not only comes from the workplace but also from the home, family, and personal relationships. Additional research is needed to investigate how these stresses interact, and how they impact extension employees on the job, particularly in the areas of job performance, job satisfaction, and turnover intentions.

The 21st century work environment presents new and evolving challenges to organizations as well as to employees. Factors that negatively influence employees ultimately result in negative outcomes for the organizational bottom line. Developing a healthy work environment can be an important step toward developing positive employee attitudes. Continued attention to employee concerns, including those related to job pressure and organizational support, will likely pay dividends in increased commitment to the organization and job satisfaction. Future research focusing on these contemporary workplace issues will likely provide additional insight into the turnover intentions process and the role job-related stress may play.

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APPENDICES

APPENDIX A

Charles L Norman To: EXT- All AES People
Sent by: Brenda K Voiles cc: cchesney@tnstate.edu
Subject: Ph.D. Study Questionnaire

12/18/01 09:28 AM

December 18, 2001

To: All Extension Faculty and Staff
From: Charles L.Norman
Dean

Ms. Patsy Ezell, Extension Program Leader in the Central District, is currently working to complete an original research project to fulfill requirements for the Ph.D. in Human Resource Development. She has chosen to utilize the Tennessee Cooperative Extension system as her study population, which comprises all employees in The University of Tennessee Agricultural Extension Service and Tennessee State University Cooperative Extension Program.

This study will focus on our work environment, specifically examining the relationship between job stress and turnover intentions among Extension employees. Clerical, support, administrative, and professional employees who work 30 or more hours weekly will be included.

I want to encourage each of you who receive a questionnaire from Ms. Ezell to participate in this study. The purpose of this investigation is to help us gain insight into factors contributing to daily job stress in today's work environment, as well as the relationship between job stress and employees' intentions to leave the Extension organization. Your active participation and candid responses in this and similar research studies ensures the data accurately reflects the perceptions and feelings of Tennessee Extension employees.

Thank you in advance for your participation in this investigation. We will look forward to Ms. Ezell sharing the results of her study through presentations at professional meetings and journal articles when she concludes her work in 2002.

!!Please notice our ADDRESS CHANGE!!

<><><><><><><><><><><><><><><><><><><><><><><>
Charles L. Norman
Dean
University of Tennessee
Agricultural Extension Service
121 Morgan Hall
Knoxville, TN 37996-4530
Phone: 865-974-7114 Fax: 865-974-1068
Email: clnorman@utk.edu

WebMail - FWD: Announcement of PhD. Study

New Msg | Reply | Reply All | Forward | Address | File | Previous | Next | Options | Inbox | Delete | Logout | Help

Date Sent: Thursday, January 03, 2002 10:06 AM

From: "Chesney, Clyde E." <CCHESNEY@TNSTATE.EDU> Add to Address Book

To: "Jackson, Albretta L" <AJACKSON@TNSTATE.EDU>

Cc: "Chesney, Clyde E." <CCHESNEY@TNSTATE.EDU>,

Subject: FWD: Announcement of PhD. Study

Status: ☐ Urgent ☐ New

TO: All Tennessee State University Cooperative Extension Employees

FR: Clyde E. Chesney
Administrator

RE: Support for Research Study on Job Stress and Turnover Intentions of Employees Within the Tennessee Extension System

This is a letter of support for Patsy Ezell's doctoral study of job stress and turnover intentions of employees within the Tennessee Extension System. This study will focus on the daily stresses inherent in our jobs and will include clerical, support,administrative, and professional employees of The University of Tennessee Agricultural Extension Service and Tennessee State University Cooperative Extension Program who work 30 or more hours per week at all levels of the organization. It will be a 50% sample, stratified into two groups by clerical/support staff, and administrative/professional.

If you are randomly selected to participate, we encourage you to complete and return the questionnaire in the stamped self-addressed envelope by Friday, January 25, 2002. We hope to obtain useful information from the study to help improve the working environment for Extension employees, regardless of their assignment within the system. Thank you in advance for your support of this research.

cc:
Dr. Augustus Bankhead, Vice President for Academic Affairs
Mrs. Linda Spears, Director Human Resources
Dr. Latif Lighari, Associate Administrator
Dr. Stephen Kolison, Research Director
Dr. Charles Norman, Dean and Director
Ms. Pasty Ezell, Program Leader-Central District and PhD. Candidate

Patsy A Ezell
12/21/01 07:56 AM

To: EXT- All AES People@UTIA
cc:
Subject: Announcement of PhD. Study

December 21, 2001

To: All University of Tennessee Agricultural Extension Service and Tennessee State University Cooperative Extension Employees

As many of you know, I am working toward obtaining the PhD. degree in Human Resource Development. An essential part of this process is conducting original research.

My research study will focus on job stress and turnover intentions of employees within the Tennessee Extension system, focusing on the daily stresses inherent in our jobs. The study will include clerical, support, administrative, and professional employees of The University of Tennessee Agricultural Extension Service and Tennessee State University Cooperative Extension Program who work 30 or more hours per week at all levels of the organization.

The purpose of this message is to inform you about my investigation, and to invite you to participate if you are chosen in the study sample. One-half of all Extension employees working 30 or more hours weekly will be randomly selected to participate, with every person having an equal chance to be selected. Those chosen to participate will receive individually addressed questionnaires in a large brown envelope via county mail packets or postal service the week of January 7, 2002. A stamped, addressed envelope will be included for you to use in returning the questionnaires.

I would greatly appreciate your candid participation in this study as I seek to examine job-related stresses in our work environment, and how those stresses may contribute to an employee's decision to leave the organization. While your participation is completely voluntary, your response to all questions will ensure that Extension employees' perceptions and feelings who work in all job assignments and levels within the organization are accurately reflected by the data. All responses will be held confidential. Study results will only report averages and other combined statistical analyses of participant responses.

Following completion of this study later in 2002, I will look forward to sharing the results with you and our organization as we continually seek ways to improve the working environment for employees regardless of their assignment or position within the Extension system.

I certainly realize your schedule will be full as you return from the Holidays. However, I hope you will take about 30 minutes of your valuable time to complete and return the survey so your views will be expressed! If possible, I would encourage you to return the questionnaire no later than Friday, January 25, 2002.

If you have questions concerning this study, please feel free to contact me via return email, or call me at the Central District Office (615) 832-6550.

Thanks in advance for your participation. I look forward to getting this study underway!

Patsy A. Ezell
Program Leader--Central District
PhD. Candidate

APPENDIX C

AGRICULTURAL EXTENSION SERVICE
THE UNIVERSITY OF TENNESSEE INSTITUTE OF AGRICULTURE

December 30, 2001

Dear Jeff,

As many of you know, I am in the process of working toward obtaining a Ph.D. in Human Resource Development. A significant part of my course of study involves original research. The purpose of this letter is to invite you to participate in this important phase of my graduate work.

I am conducting a statewide study of job stress and turnover intentions among Extension employees in the Tennessee Extension system, comprised of employees of The University of Tennessee Agricultural Extension Service and Tennessee State University Cooperative Extension Program. The study population includes employees in all positions and levels of the organization. By examining this topic, I hope to contribute to the understanding of factors in today's work environment causing job stress in the Extension system, as well as the relationship between job stress and employees' intentions to leave the organization. The enclosed questionnaires and demographic survey are designed to obtain information about your work background and responsibilities, levels of job stress, job satisfaction, organizational commitment, and intent to leave the Extension organization.

Your responses will be kept anonymous. To ensure confidentiality and to facilitate tracking of feedback, the questionnaires have been numerically coded to limit follow up notification. Upon completion of the study, I will be glad to provide you with a summary of research findings. Please send a separate request via email to paezell@ext1.ag.utk.edu, and I will forward you a summary of the study and conclusions.

It is important that you complete all questions in all parts of the questionnaire. The first page (buff) includes Parts I and II. The second document is in the form of a booklet, and contains Parts A and B, with instructions on the front, followed by two pages of questions. Please review the instructions carefully to ensure your responses can be included in the final analysis. Please do not separate the booklet pages, as that will slow down the scoring process.

I would greatly appreciate your completion of the questionnaires by January 25, 2002. I have provided a stamped, addressed envelope for your use in returning them. Please do not put your name on the questionnaires or envelope.

Participation in this study is voluntary. Your returning the completed questionnaires will serve as notification that you choose to participate. In addition, you may withdraw from this study at any time by notifying me directly.

I realize that your schedule is busy and that your time is valuable. However, the short time (approximately 30 minutes) that it will take you to complete and return these surveys would provide valuable insight into the current working environment for our organization.

Thank you in advance for your participation. If you have any questions about this study, please contact me at (615) 832-6550.

Yours very truly,

Patsy A. Ezell

Patsy A. Ezell
Program Leader
Ph.D. Candidate

APPENDIX D

PART I. Job-Related Questions

The questions below ask you to circle one of seven numbers that appear on a scale to the right of the item. Please choose the one number that best matches the description of how you feel about the item, based on the following descriptions:

Strongly Disagree 1
Disagree 2
Slightly Disagree..... 3
Neither Agree or Disagree 4
Slightly Agree..... 5
Agree..... 6
Strongly Agree..... 7

For example, if you were asked how much you agree with the statement "I enjoy hot weather", and you feel that you do agree, you would circle the number "6" like this:

	Strongly Disagree						Strongly Agree
(EXAMPLE) I enjoy hot weather.	[1]	[2]	[3]	[4]	[5]	(6)	[7]

Think about the job you currently hold with UT or TSU Extension as you respond to the following questions.

		Strongly Disagree						Strongly Agree
1.	All in all, I am satisfied with my job.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
2.	In general, I don't like my job.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
3.	In general, I like working here.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
4.	I often think about quitting my job.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
5.	I will probably look for a new job during the next 12 months.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
6.	It is likely I will actively look for a new job during the next 12 months.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
7.	I am willing to put a great deal of effort beyond that normally expected in order to help this organization succeed.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
8.	I talk up this organization as a great organization to work for.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
9.	I would accept almost any type of job assignment in order to keep working for this organization.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
10.	I find that my values and the organization's values are very similar.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
11.	I am proud to tell others I am a part of this organization.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
12.	This organization really inspires the very best in me in the way of job performance.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
13.	I am extremely glad I chose this organization to work for over others I was considering at the time I joined.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
14.	I really care about the fate of this organization.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
15.	For me, this is the best of all possible organizations for which to work.	[1]	[2]	[3]	[4]	[5]	[6]	[7]

Thanks for answering all questions on this and the following pages! Your response is important to ensure the data accurately reflect perceptions of Extension employees. Patsy Ezell

PART II. Demographic Questions

Think about your current personal status as you respond to the following questions.

1. Which category below best reflects your current AGE in years:
   ☐ less than 30 ☐ 31 - 40 ☐ 41 - 50
   ☐ 51 - 60 ☐ Over 60

2. What is your GENDER?
   ☐ Female ☐ Male

3. What is your ETHNICITY?
   ☐ African-American
   ☐ Asian/Pacific Islander
   ☐ Hispanic
   ☐ Native American
   ☐ White
   ☐ Other (please specify)_____

4. What is the highest EDUCATIONAL LEVEL you have completed?
   ☐ High School ☐ Associate's Degree
   ☐ Bachelor's ☐ Master's
   ☐ Doctorate ☐ Other

5. How many YEARS have you worked with UT or TSU Extension?
   ☐ less than one year ☐ 1-5 years
   ☐ 6-10 years ☐ 11-15 years
   ☐ 16-20 years ☐ 21-30 years
   ☐ 31 years or more

6. How many YEARS have you worked with UT or TSU in your CURRENT position?
   ☐ less than one year
   ☐ 1-5 years ☐ 6-10 years
   ☐ 11-15 years ☐ 16-20 years
   ☐ 21-30 years ☐ 31 years or more

7. How is your CURRENT JOB CLASSIFIED?
   ☐ **Clerical/support (Non-Exempt)**
   Please Indicate Title_____

   ☐ **Administrative/Professional (Exempt)**
   Please Indicate Title_____

8. At what LEVEL IN THE ORGANIZATION are you currently employed?
   ☐ County
   ☐ District or Area
   ☐ State

9. If your current job is classified as **Administrative or Professional,** what is your CURRENT JOB **Assignment?** (Please check all that apply)
   ☐ Agriculture
   ☐ Community Resource Development
   ☐ Family & Consumer Sciences
   ☐ Four-H Youth Development
   ☐ County Director
   ☐ District or State Administrator

APPENDIX E

Patsy A Ezell
01/22/03 02:11 AM

To:
cc:
Subject: Participation in Job Stress and Turnover Intentions Research Study

Dear _____,

I am in the process of tabulating data from the responses I have received from almost 300 Extension personnel across the state of Tennessee. According to my records, you were randomly selected to participate in this study. However, I have yet to receive your response.

While the original deadline was January 25, I am extending this deadline until Monday, February 18 to give you an additional opportunity to participate. Your input is extremely important to the accuracy of the final results of this project.

If, by chance, you did not receive a copy of the survey instruments, or if you have lost, misplaced, or thrown away your copies, please let me know via return email. I will be happy to send you another copy. If you have any questions concerning the surveys, you can also call me at (615) 832-6550.

Thanks in advance for taking your valuable time to participate in this research project. Only through active participation of employees throughout the organization will meaningful results be obtained.

Patsy A. Ezell
District Program Leader
Ph. D. Candidate
5201 Marchant Drive
Nashville, TN 37211-5112
The University of Tennessee
Agricultural Extension Service
(615) 832-6550
FAX: (615) 832-0043
pezell@utk.edu

Patsy A Ezell
01/25/02 08:29 AM

To: EXT- All AES People@UTIA
cc:
Subject: Response to Job Stress & Turnover Intentions Research Survey

TO: All Extension Personnel Who Recently Received a Job Stress Survey and Supplementary Survey

Thanks so much to the 260 of you who have completed and returned surveys to me! I greatly appreciate your interest and participation. This research project can only be a success with your active and honest input.

While today is the original deadline for this project, I still need your input if you have not returned your survey. There is still plenty of time to complete the survey and return it to me in the stamped, addressed envelope I provided in the original packet. (I will be very busy scoring the surveys I have already received!).

If you have not already done so, please take about 30 minutes of your valuable time to complete all questions on the two surveys and return them as soon as possible. I hope to have most surveys in no later than February 8.

I f you have questions concerning the survey, feel free to email or call. Or, if you have misplaced your survey, send me a return email message, and I will be happy to send you another copy.

While the response has been good to this effort, the results of this study will be more accurate as more data is received. That is why it is so important for you to submit your completed surveys. I am interested in everyone who was chosen in the random sample having his or her perceptions and responses included in the overall study results. Only then will the study result in an accurate reflection of how Extension employees view stress, and how it affects turnover within our organization.

Thanks again to each of you who have chosen to participate in this research effort. I will look forward to sharing the study results with you.

Patsy A. Ezell
District Program Leader
5201 Marchant Drive
Nashville, TN 37211-5112
The University of Tennessee
Agricultural Extension Service
(615) 832-6550
FAX: (615) 832-0043
pezell@utk.edu

VITA

Patsy Anderson Ezell was born in Lawrenceburg, Tennessee, and graduated from Perry County High School in Linden, Tennessee. After two years of undergraduate study at the University of Tennessee at Martin, she graduated from the University of Tennessee at Knoxville with the B.S. degree in Home Economics Education.

After two years of working and living in Connecticut and a year in Louisiana working as a graduate nutrition research assistant at Louisiana State University, Ms. Ezell returned to The University of Tennessee to complete her graduate work. Before completing requirements for the M.S. degree, in 1976 she was employed with the University of Tennessee Agricultural Extension Service in Wayne County. She completed the M.S. degree in Nutrition from the University of Tennessee in 1981.

Ms. Ezell held two additional county positions with the University of Tennessee Agricultural Extension Service. In 1984, she began work in Giles County as 4-H Extension Agent; in 1989, she transferred to assume the same responsibilities in Williamson County. In 1992, Ms. Ezell was appointed Central District Program Leader, where she served until April 1999. At that time, she was offered the opportunity to assume a temporary assignment as State Specialist in Nutrition while continuing to work on the Ph.D. degree in Human Resource Development - Human Ecology. She served in this position for one year, followed by one year of educational leave. Ms. Ezell then resumed her former position as Central District Program Leader with the University of Tennessee Agricultural Extension Service, where she is currently employed in her 26th year of service. She completed requirements for a Ph.D. in May 2003.